

Equity, Efficiency, and Stability: The Importance of Macroeconomics for Evaluating Income Tax Policy

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In this period of economic uncertainty, tax scholars must examine income tax policy from a macroeconomic perspective. The standard lenses of efficiency and equity no longer suffice. To highlight the importance of the macroeconomic perspective, this Article demonstrates that most tax expenditures are procyclical, exacerbating the business cycle. Tax expenditures effectively offer government subsidies for certain activities, such as charitable giving or home purchases. Because these activities vary with the business cycle, tax expenditures are higher at business cycle peaks than at business cycle troughs. The more a given activity varies in tandem with the business cycle, the greater the procyclicality of the tax expenditure. While recent income tax and government spending policies have been explicitly devoted to stimulating the economy, the destabilizing impact of tax expenditures quietly negate much of the impact of fiscal stimulus measures. Our inability to discern tax expenditures' hidden destabilizing impact is symptomatic of a general neglect of macroeconomics in income tax policy. To avoid introducing and perpetuating further destabilizing forces into the current era of general economic uncertainty, macroeconomic perspectives should assume a more prominent place in tax policy discourse.

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Introduction

During the last several years, the United States has attempted to mitigate the “Great Recession” by increasing spending and by cutting income taxes. In keeping with Keynes, the federal government has tried to stabilize the economy

by putting more public spending into the economy to compensate for the decrease in private demand.

Even as the federal government has attempted to stabilize the economy with fiscal stimulus, many of its longstanding tax policies have had precisely the opposite effect. Hidden from view, these policies are inherently destabilizing—they increase aggregate demand in good years and decrease it in bad years. Thus, even as we have watched waves of federal dollars wash over the economy, we have missed the powerful undertow that occurs as tax policies silently pull those dollars back out of the economy. Much of our Tax Code, in short, is at war with our fiscal policy. And no one is paying attention to that fact.

The reason for this neglect is simple: economic stability is not thought to matter in evaluating tax policy. Everyone knows that the goals of tax policymaking are equity, efficiency, and simplicity. Those goals are inscribed in every textbook and invoked by scholars and policymakers. Economic stability is nowhere to be found in contemporary debates on tax policy. If anything, tax scholars are hostile to its inclusion in the tax policy pantheon.

It was not always so. Forty-six years ago, when memories of the Great Depression were still relatively fresh, it was well established that tax policy should play a role in economic stabilization, providing governments with an important “weapon to forestall . . . recession.”¹ But stabilization fell from grace during the era known as the “Great Moderation,” a period of stable economic growth that occurred in most countries between 1983 and 2007.² During this time, a consensus developed that fiscal policy was inappropriate for stabilization. Monetary policy alone could handle the task of stabilizing the economy, so why muck up tax policy with an unnecessary task?

The prolonged and painful Great Recession that started in 2007 put an end to the Great Moderation. The recession also ended the academic consensus in favor of monetary policy as the sole lever for stabilizing the economy.³ Stabilization provided a significant motivation for the tax cuts enacted in 2008,⁴

1. ERWIN N. GRISWOLD, *CASES AND MATERIALS ON FEDERAL TAXATION* 52-55 (6th ed. 1966).

2. See James H. Stock & Mark W. Watson, *Has the Business Cycle Changed? Evidence and Explanations*, FED. RESERVE BANK OF KAN. CITY 1 (2003), available at <http://www.kc.frb.org/publicat/sympos/2003/pdf/Stock-Watson.0902.2003.pdf>; Ben S. Bernanke, Member, Bd. of Governors, Fed. Reserve Sys., *The Great Moderation, Remarks at the Meetings of the Eastern Economic Association* (Feb. 20, 2004), available at <http://www.federalreserve.gov/BOARDDOCS/SPEECHES/2004/20040220/default.htm>.

3. See John B. Taylor, *The Lack of Empirical Rationale for a Revival of Discretionary Fiscal Policy*, 99 AM. ECON. REV. PAPERS & PROC. 550, 550 (2009) (noting, but arguing against, “a dramatic revival of interest in discretionary fiscal policy” in early 2009).

4. See Economic Stimulus Act of 2008, Pub. L. No. 110-185, 122 Stat. 613 (codified in scattered sections of I.R.C.) (enacting numerous tax reforms). For an example of the 2008 Act’s provisions, see I.R.C. § 6428 (2006 & Supp. 2010), which provides tax rebates for individuals.

2009,⁵ and 2010.⁶ Many tax policy experts supported those cuts explicitly for their stabilization benefits.⁷

Even as stabilization has regained its place as an important tax policy objective, however, our understanding of the relationship between tax policy and stabilization remains rudimentary. We can tell policymakers to cut taxes in recessions and raise taxes in high-growth periods as tools for stabilization. But we do not know—we do not even think about—how the rest of the massive U.S. Federal Income Tax Code functions from a stabilization perspective. Legions of tax provisions have been carefully parsed from equity, efficiency, and simplicity perspectives, but their impacts on the economy's stability are unexamined and thus unknown and unnoticed.

Take the exclusion of employer-provided health benefits from income taxation.⁸ The exclusion provides an effective government subsidy for health insurance relative to other forms of employee consumption. The exclusion will cost \$1 trillion over five fiscal years from 2012 to 2016,⁹ making it only slightly smaller than the stimulus package enacted under President Obama, the American Recovery and Reinvestment Act (ARRA), which spent more than \$800 billion.¹⁰ An alternative policy would be for the government to subsidize healthcare directly. If the government gave each individual a check to defray

5. See American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115. The 2009 Act included many tax provisions. For a summary, see *The American Recovery and Reinvestment Act of 2009: Information Center*, IRS, <http://www.irs.gov/newsroom/article/0,,id=204335,00.html> (last updated Oct. 31, 2011). One of the stated purposes of the Act was to “promote economic recovery.” See American Recovery and Reinvestment Act of 2009, § 3(a)(1), 123 Stat. at 116.

6. See Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, Pub. L. No. 111-312, 124 Stat. 3296. The 2010 Act also included many tax provisions. For a summary, see *Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010: Information Center*, IRS, <http://www.irs.gov/newsroom/article/0,,id=233907,00.html> (last updated Jan. 4, 2011). One of the understood purposes of the Act was to “provide a fresh boost of federal support to the tepid economic recovery.” Lori Montgomery & Shailagh Murray, *Congress Votes To Extend Bush-Era Tax Cuts Until '12*, WASH. POST, Dec. 17, 2010, <http://www.washingtonpost.com/wp-dyn/content/article/2010/12/16/AR2010121606672.html>.

7. For example, N. Gregory Mankiw, Chairman of the Council of Economic Advisers during George W. Bush's Administration, initially praised Keynesian policies as a response to the recession. See N. Gregory Mankiw, *What Would Keynes Have Done?*, N.Y. TIMES, Nov. 28, 2008, <http://www.nytimes.com/2008/11/30/business/economy/30view.html>.

8. “Tax expenditures,” such as the exclusion for employer-provided health coverage, have previously been criticized on several other grounds as being inequitable and regressive. See MICHAEL GRAETZ & DEBORAH SCHENK, *FEDERAL INCOME TAXATION: PRINCIPLES AND POLICIES* 56-62, 104-109 (6th ed. 2009).

9. See OFFICE OF MGMT. & BUDGET, ANALYTICAL PERSPECTIVES: BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 2012, at 252 tbl.17-3 (2011), available at <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2012/assets/spec.pdf> (estimating the five-year cost of the “[e]xclusion of employer contributions for medical insurance premiums and medical care” at \$1.07 trillion).

10. See American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (codified as amended in scattered sections of U.S.C.); *The Recovery Act*, RECOVERY.GOV, http://www.recovery.gov/About/Pages/The_Act.aspx (last visited Dec. 19, 2011) (“In 2011, the original Recovery Act expenditure estimate of \$787 billion was increased to \$840 billion . . .”).

the cost of health insurance, then it is extremely unlikely that the government would choose to give a higher subsidy in good economic times and a lower subsidy in recessions. The exclusion of employer-provided health insurance from income tax, however, does exactly this. The subsidy for healthcare provided by the exclusion only applies to employed individuals. When the economy is buffeted by a shock, such as a sudden loss of confidence, employment tends to decrease. With employment down, there are fewer workers to benefit from the exclusion of employer-provided health insurance from taxation. As a result, the effective government subsidy for health insurance goes down, further decreasing aggregate demand for healthcare and other goods. The size of the government subsidy for healthcare goes up in good years and down in bad years, destabilizing the economy. As a result, a direct government subsidy for healthcare is preferable to healthcare tax expenditures, other things equal.¹¹ The expenditure destabilizes the economy while the subsidy does not.

This Article tries to reinvigorate academic study of the Tax Code from a stabilization perspective.¹² The Article takes an explicitly Keynesian perspective on business cycle fluctuations. This perspective, which is described in Part I, is widely, though far from unanimously, supported by macroeconomists.¹³ While no paper could canvas the entire Tax Code, the Article discusses many of the most important provisions of the Code from a revenue perspective. It demonstrates that, in many cases, the Tax Code's idiosyncrasies have a strongly destabilizing effect on the economy. Greater attention to stability, in addition to equity and efficiency, should yield a Tax Code that dampens economic cycles to a greater degree than the current Code.

Part II provides a brief introduction to the rudiments of Keynesian macroeconomic analysis. While this perspective would once have been second nature to tax scholars, it now bears repeating because of the scarcity of tax

11. While it is difficult to disentangle marginal changes in the cost of tax expenditures owing to the business cycle from general changes in the policies or in marginal income tax rates, note that the cost of the healthcare tax expenditure declined by approximately \$2 billion between 2007 and 2008. If the cost had increased at its trend rate, the cost would have gone up by roughly \$8 billion. Thus, the destimulus caused by the structure of the healthcare exclusion tax expenditure alone was approximately \$10 billion. See Yair Listokin, Tax Expenditure Data, 1994-2009 [hereinafter Tax Expenditure Data] (unpublished dataset) (on file with author). The dataset compiles figures from the Office of Management and Budget's annual *Analytical Perspectives: Budget of the United States Government* for various years. With the exception of the decrease from 2007 to 2008, the cost of the exclusion for employer provided health insurance went up by \$7 billion or more from each year from 2004 to 2009. See *id.*

12. A sketch of some of the points made here, as well as some additional speculations regarding the Tax Code and stabilization, can be found in an earlier paper of mine: Yair Listokin, *Stabilizing the Economy Through the Income Tax Code*, 123 TAX NOTES 1575 (2009). A mathematical demonstration of many of the arguments made here can be found in Yair Listokin, *A Note on Tax Expenditures and Business Cycle Fluctuations*, in NAT'L TAX ASS'N PROCEEDINGS: 102ND ANNUAL CONFERENCE ON TAXATION 195 (2011), available at <http://www.ntanet.org/images/stories/pdf/proceedings/09/023.pdf>.

13. For an introduction to the arguments in favor of and against Keynesianism, see *Economist Debates: Keynesian Principles*, ECONOMIST (Mar. 10, 2009), <http://www.economist.com/debate/days/view/276>.

scholarship that takes a stabilization perspective. Part III then traces the intellectual history of stabilization debates in tax policy, showing that a once-dominant concern was all but erased from the tax canon. As a result, we do not know much more about the Tax Code's destabilizing effects than we did in 1965, and we are far less likely to notice them. Part IV introduces the subject of "tax expenditures"—the approximately \$1 trillion that is "spent" annually through the Tax Code to encourage activities such as homeownership, retirement savings, and charitable giving.¹⁴ Part V turns to the meat of the argument, identifying the stabilization saboteurs in the Tax Code and showing how they work. In spite of the importance of tax expenditures, they have never been examined from a stabilization perspective. Many tax expenditures have deeply destabilizing effects on the economy, on a scale that counteracts the fiscal stimuli that have been produced to mitigate the recession. In addition to tax expenditures, the Article demonstrates that other Tax Code provisions, such as loss limitations, are not only destabilizing from a Keynesian perspective, but also from other, newer, views of how the macroeconomy works. Part VI presents policy recommendations that follow from the macroeconomic perspective and sketches a further research agenda for those interested in reconciling our Tax Code with our fiscal policy.

I. Keynesian Macroeconomic Theory and the Income Tax

Because the Tax Code has assumed a prominent role in moderating the Great Recession,¹⁵ a rough-and-ready understanding of the economics that underpin this role of the income tax is necessary for a full evaluation of the impacts of income tax policy in today's economy. Keynesian macroeconomic theory justifies the use of the Tax Code for macroeconomic stabilization. As a result, this Section provides a brief overview of Keynesian economic theory.

According to Keynesians, sudden changes in aggregate demand for economic output can lead to short run changes in actual output. Although Keynesian macroeconomics is not universally accepted,¹⁶ it is the standard textbook approach to short-run fluctuations and has gained additional prominence with the economic crisis of 2007-2009.¹⁷ As N. Gregory Mankiw, a

14. See OFFICE OF MGMT. & BUDGET, ANALYTICAL PERSPECTIVES: BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 2011, at 220 tbl.16-3 (2010) [hereinafter OMB, YEAR 2011], available at <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2011/assets/spec.pdf> (presenting revenue effects of tax expenditures summing to more than \$1 trillion).

15. See, e.g., Jonathan Chait, *Obama Considering Another Stimulus Tax Cut*, NEW REPUBLIC, June 9, 2011, <http://www.tnr.com/blog/jonathan-chait/89684/obama-considering-another-stimulus-tax-cut> (emphasizing the role of cutting taxes in creating an economic stimulus to moderate the effects of the Great Recession).

16. A school of macroeconomics known as "real business cycle theory" understands short-run fluctuations as the result of shocks to technology and the desire of workers to consume leisure. See N. GREGORY MANKIW, MACROECONOMICS 503-05 (5th ed. 2003).

17. See, e.g., *id.* at 238-55 (emphasizing Keynesian macroeconomic models in discussion short-run economic fluctuations).

former chairman of George W. Bush's Council of Economic Advisors, wrote in November 2008:

If you were going to turn to only one economist to understand the problems facing the economy, there is little doubt that the economist would be John Maynard Keynes. Although Keynes died more than a half-century ago, his diagnosis of recessions and depressions remains the foundation of modern macroeconomics. His insights go a long way toward explaining the challenges we now confront.¹⁸

A. *The Multiplier Effect*

The existence of a Keynesian multiplier effect implies that changes in income tax policies and rates can have much greater stabilizing or destabilizing effects than might originally be expected. The impact of a tax cut or tax expenditure can reverberate through the economy via the multiplier effect.

The starting point of Keynes's model is the assumption that desired expenditures must equal production.¹⁹ Expenditures can take one of three primary forms: consumption, investment, or government spending. In addition, Keynes assumed that savings must equal investment, where savings is defined as disposable income minus consumption, and where disposable income is equal to total income minus taxation.

Consider an economy in a stable equilibrium with low unemployment. In this economy, firms are neither building up nor depleting inventories. Now suppose that for some reason, one component of expenditure, such as investment, declines. Firms will find that they are now building up inventories, as the output they produce is no longer fully expended on investment, consumption, and government spending. In response, firms will cut output. This cut in output decreases disposable income, leading to lower consumption expenditures, further increases in inventories, and further decreases in output (the "Keynesian multiplier" effect). The economy reaches equilibrium when the desired expenditure equals the amount of output. This new equilibrium output level is lower than the initial decrease in desired investment (due to the multiplier effect) and lower than the original low unemployment equilibrium.²⁰ The Keynesian model therefore demonstrates how shocks to components of

18. Mankiw, *supra* note 7.

19. This is often called the "Keynesian Cross." For a textbook discussion, see, for example, MANKIW, *supra* note 16, at 11. Note that new Keynesian models derive output fluctuation from aggregate demand and aggregate supply curves, in which interest rates are partially flexible in the short term and entirely flexible in the long term. This paper focuses on the Keynesian Cross for simplicity. The direction and qualitative nature of the results for automatic stabilizers and destabilizers are unchanged by this assumption, though the magnitudes of the effects will be smaller in the more complicated model.

20. Current macroeconomic theory maintains that, over a sufficiently long time, the price of goods will adjust such that output will return to its natural level. The adjustment period may be a long one, however, and may trigger instability that threatens the underlying level of equilibrium output.

expenditure, such as desired investment, may lead to downturns where the level of unemployment is higher than its natural level.

The Keynesian multiplier effect can also amplify the positive contributions of tax policy. Suppose that there is some positive shock to the economy, such as a new technology, that causes businesses to make additional investments. In this case, planned expenditure exceeds planned output, so inventories decrease. In response, firms raise output. This increase in output raises disposable incomes, causing even higher desired expenditure, which in turn raises output yet again (the multiplier effect). The economy reaches equilibrium at a point with lower unemployment and higher output than its initial state. Moreover, the multiplier effect means that the change in output is greater than the initial change in desired investment that triggered the increase in economic output.

The size of this multiplier effect depends upon the sensitivity of expenditures to changes in output. For example, if laid-off workers cut down radically on their expenditures, then the multiplier effect of the original shock to investment will be much larger than if the workers continue to expend on consumption at their previous rate. Similarly, if newly hired workers spend all of their new income on expenditures, then the original increase in output owing to investment demand will be multiplied to a greater extent than if the newly hired workers maintained the same level of expenditure.

It should be emphasized here that the multiplier effect is a short-run phenomenon. Over time, prices for goods and labor will adjust to mitigate the impacts of changes in desired expenditure on output. As a result, Keynesian policy prescriptions apply to short-run macroeconomic disturbances, such as recessions, rather than long-term processes of economic growth.

The existence of a multiplier effect generates several policy prescriptions of interest to tax scholars. These prescriptions are examined in the next subsection.

B. Policy Prescriptions

Keynesian macroeconomic theory offers an explanation for why an economy might be more prone to fluctuation than classical supply and demand theory would suggest. Keynesian theory also provides policy prescriptions for reducing the volatility of the economy. This section provides examples of Keynesian policy prescriptions and analysis, with a particular emphasis on income tax provisions in Keynesian theory.

A policy is not stabilizing or destabilizing in the abstract. Instead, policies are only stabilizing with respect to alternative policies. Thus, the textbook monetary and fiscal policy prescriptions described below are stabilizing relative to alternative monetary and fiscal policies. In the examples that follow, increased government spending in recessions is stabilizing relative to constant government spending across the business cycle; an income tax is stabilizing

relative to a head tax that raises the same revenue; and progressive income taxes are stabilizing relative to a constant rate income tax.

1. The Income Tax as an Automatic Keynesian Stabilizer

The income tax functions as an important automatic stabilizing force for the economy. One introductory economics textbook describes the issue as follows:

The income tax acts as a shock absorber because it makes disposable income, and thus consumer spending, less sensitive to fluctuations in GDP [W]hen GDP rises, disposable income . . . rises *less* because part of the increase in disposable income is siphoned off by the U.S. Treasury. This leakage helps limit any increase in consumption spending. When GDP falls, [disposable income] falls less sharply because part of the loss is absorbed by the Treasury rather than by consumers. So consumption does not drop as much as it otherwise might. Thus, the much-maligned personal income tax is one of main features of our modern economy that helps ensure against a repeat performance of the Great Depression.²¹

In effect, income taxes reduce the size of the Keynesian multiplier. One cannot consume all increases in pretax income because a significant portion of that income goes to the government. Thus, a positive shock to investment demand, which leads to more profits for a firm, does not have the same effect on employment that it would absent the income tax. Because the income tax takes some of the firm's profits, it cannot hire as many workers, so the multiplier effects of the initial increase in profits on total demand are lower.

A lump sum tax, by contrast, does not function as an automatic stabilizer. If each individual's tax liability is fixed, then a change in pretax income translates into an equivalent change in after tax income. As a result, lump sum taxes do not stabilize the economy at all with respect to an economy without any taxes. The Keynesian multiplier in an economy with lump sum taxes is the same as in an economy without any taxes.

Moreover, the stabilization effect of income taxes is automatic. If income goes up due to a shock, the income tax does not need altering in order to limit the impact of the shock on the total economy. Instead, the stabilization will happen automatically, as income taxes will be higher when incomes rise. Discretionary changes in income taxes, such as tax rebates enacted during recessions, can augment the automatic stabilizing effects of an income tax.

The greater the income tax rate and government spending rate, the greater the effect of automatic stabilization. For example, if the income tax rate were 100%—all income went to the government—then a shock to some component of expenditure and output would not trigger a change in consumption because higher incomes would not translate into higher disposable incomes. The closer an economy is to eliminating the relationship between income and disposable

21. WILLIAM J. BAUMOL & ALAN S. BLINDER, *MACROECONOMICS: PRINCIPLES AND POLICY* 225 (11th ed. 2009).

income, the less the economy will magnify initial shocks to expenditure into larger changes in output.²²

2. Progressive Income Taxes and Stabilization

Progressive income taxes heighten the degree of automatic stabilization provided by the income tax. In a constant rate income tax, an increase or decrease in income is buffered by the fact that the change in income is shared with the government at constant rate defined by the marginal income tax rate. With progressive income taxes, by contrast, an income shock is met by a more than proportional change in taxes. If everyone's income drops in response to a shock, then the average marginal tax rate in a progressive income tax will also drop. Thus, the drop in consumer's net disposable income in response to a negative shock to expenditures will be lower than the total shock to incomes for two reasons: (1) lower income means lower tax payments in any form of an income tax, and (2) the taxpayer pays a lower average rate on this lower amount of income because of the drop in average tax rates associated with a progressive income tax.

A constant rate income tax, by contrast, cushions changes to disposable income exclusively by collecting more or less taxes in direct proportion to income. As a result, a progressive income tax provides more stabilization than a constant rate income tax that collects the same amount of revenue.

3. Shifting Government Spending and Taxation To Offset Sudden Changes in Expenditures

Keynesian macroeconomic theory suggests that countercyclical fiscal policy, wherein the government makes expenditure decisions that lean against the shocks hitting the economy, is justified. If there is a sudden decrease in demand for investment, an offsetting increase in government expenditures means that planned expenditures still equal planned output and total output remains at its previous level (although the composition of the expenditures shifts away from private investment toward government expenditures). Alternatively, a decrease in tax revenues from a decrease in tax rates raises disposable income and hence raises consumption, providing a different avenue for offsetting the decrease in investment. If there is a sudden increase in demand for investment, by contrast, a corresponding decrease in government expenditures eliminates volatility in output (although, again, the composition of output shifts). Such offsetting fiscal policy is particularly attractive because the multiplier effect means that, absent the offsetting policies, the total fall in

22. This is not say that 100% income tax rates are desirable. Such high rates would undoubtedly have important effects on incentives to work and produce. From a macroeconomic stabilization perspective, however, high income tax rates provide a more stable economy than lower rates.

output triggered by the initial fall in investment would be much greater than the initial decrease in expenditure.

Changes in government spending that respond to changes in desired investment can be described as “automatic” or “discretionary” fiscal policy. The change in government spending is automatic if no new laws or regulations need to be passed in response to the change in desired investment or consumption. Unemployment insurance is a popular example of an automatic government-spending stabilizer. When desired investment goes down, inventories pile up, workers are laid off, more workers file for unemployment insurance, and government spending rises. The mere existence of an unemployment insurance program implies that government spending automatically counteracts changes in private demand to some degree.

The government can also enact bills to increase government spending and/or decrease tax revenue in response to recession. For example, the ARRA contained \$288 billion in tax cuts designed to help stimulate private consumption.²³ (Lowering tax bills gives consumers more discretionary income and thereby encourages more consumption.) The ARRA also raised spending on roads to counteract a collapse in private investment and consumption spending.²⁴ This stabilization policy was discretionary. If the government had not raised highway spending and lowered taxes through the stimulus bill of 2009, tax revenue would not have fallen by as much and transportation spending would not have risen by as much during the recession.

These Keynesian policy prescriptions regarding the Tax Code were well known in the 1960s and 1970s but are less familiar today. The next Part traces the process of “forgetting” that made the overview of Keynesian economics provided here necessary.

II. The Disappearance of Stabilization from Tax Policy Discourse

In the wake of the Great Depression, the previous Part’s discussion of income tax policy from a stabilization perspective became a standard feature of income tax courses offered in law schools as well as of political debates regarding the income tax. This Part documents stabilization’s past prominence

23. See *The Recovery Act*, *supra* note 10 (describing the primary terms of the ARRA of 2009).

24. See *id.* (“Construction and repair of roads and bridges as well as scientific research and the expansion of broadband and wireless service are also projects that the Recovery Act is funding.”). For a description of highway spending implemented by the Recovery Act, see *Federal Highway Administration Highway Infrastructure Investment Program Performance Plan*, U.S. DEP’T OF TRANSP. (2009), <http://www.dot.gov/recovery/docs/RATB-ARRA-%20FHWA%20Highway%20Infrastructure%20Investment.pdf>. See also *Transportation, STATES FOR TRANSPARENT & ACCOUNTABLE RECOVERY COALITION*, <http://www.accountablerecovery.org/transportation> (last visited Dec. 2, 2011) (noting that “[t]ransportation—especially highways, transit and high-speed rail—accounts for one of the largest pots of money in the Recovery Act”).

and its fall from grace. It then argues that stabilization needs to become a reinvigorated presence in income tax policy debates.

A. *Stabilization and Federal Income Tax Casebooks*

In the introductory chapter of the sixth edition (1966) of *Federal Income Taxation*, Erwin Griswold listed several objectives of tax policy.²⁵ Griswold claimed that tax policy should facilitate “equitable tax burden distribution” and avoid economic inefficiencies.²⁶ Tax policy should also play a role in “economic stabilization” and should be used as “weapon to forestall . . . recession.”²⁷

The next edition of the Griswold casebook (1976), co-authored with Michael Graetz,²⁸ contained the following summary of the “current state of affairs” of tax analysis:

(2) [Concerns of equity:] “Progressive taxation as a means of equitable tax burden distribution is more or less accepted, but there are considerable differences in opinion as to how far it should be carried. (3) [Efficiency:] Economists are agreed that taxes are rarely neutral and that unintended non neutralities should be avoided where possible. (4) [Efficiency:] Deliberate use of tax policy to correct inefficiencies in the market, or activities has become common, but the extent to which this should be done remains controversial. (5) [Stabilization:] Increased attention is now paid to the role of tax policy in economic stabilization. Whereas writers on fiscal policy in the 30’s and 40’s had emphasized changes in the level of public expenditures as a means of affecting the level of aggregate demand, recent concern has been with doing so by changing the level of tax rates. The need for coordinating tax policy with other measures of stabilization, such as monetary policy, is widely accepted.”²⁹

The next edition of the casebook, by contrast, lists “equity,” “efficiency,” and a “simplicity criterion” for measuring the effectiveness of tax policy.³⁰ Economic stabilization is nowhere to be found. The elision of stabilization persists in subsequent editions. Equity, efficiency, and simplicity—and not stabilization—remain the primary criteria for evaluating tax policy in the most recent edition of the same casebook.³¹

A similar, though less pronounced, de-emphasis on stabilization can be found in another prominent federal income taxation casebook first authored by Boris Bittker.³² In the first edition of the casebook (1954), Bittker discusses a

25. ERWIN N. GRISWOLD, CASES AND MATERIALS ON FEDERAL TAXATION (6th ed. 1966).

26. *Id.* at 52.

27. *Id.* at 53, 55.

28. ERWIN N. GRISWOLD & MICHAEL J. GRAETZ, FEDERAL INCOME TAXATION: PRINCIPLES AND POLICIES 10 (1st ed. 1976).

29. *Id.* at 10. The first criterion on the list, “economic welfare of the community,” is omitted because it is overly general—almost any goal can be included within “economic welfare of the community.”

30. MICHAEL J. GRAETZ, FEDERAL INCOME TAXATION: PRINCIPLES AND POLICIES 15-16 (successor ed. 1985).

31. GRAETZ & SCHENK, *supra* note 8, at 28-30.

32. BORIS I. BITTKER, FEDERAL INCOME TAXATION: CASES AND MATERIALS (1954).

number of features of the income tax, including the “incentives” that taxes create³³ and the value of “progression” within the income tax.³⁴ Before discussing these features of the income tax, however, Bittker reports a debate about the “built in flexibility” of federal revenues to output that characterizes an income tax.³⁵ Bittker notes that some tax scholars view

“built-in-flexibility” . . . [as] one of the merits of the income tax; the automatic decline in tax liability when income falls serves to release consumer spending power when it is most needed, without the delay of political action, while in a period of boom, the automatic rise in tax liability serves to reduce the inflationary pressure of increased purchasing power.³⁶

By the sixth edition of the casebook (1984), however, stabilization is reduced to an afterthought.³⁷ A section discussing “the goals for a good income tax” emphasizes “(a) fairness, (b) administrative feasibility, and (c) soundness of economic effects” as the primary goals of income tax policy.³⁸ The section on goals notes, almost as an afterthought, that

a final aspect of tax policy deserves very brief mention. Economists have argued that an income tax can be used to promote economic stability by adjusting revenue to the need for economic stimulation or dampening. In recent years there has been a general decline in confidence in our ability to use any part of the tax system . . . successfully for this purpose.³⁹

By the latest edition of the casebook, even this brief mention of the stabilization as a goal for economic policy has been eliminated.⁴⁰

The elimination of stabilization from the Tax Code mirrored a similar progression in economic and policy analysis of the Tax Code. Richard Musgrave’s classic text on tax policy (1959) listed three objectives of public finance: “to (1) secure adjustments in the allocation of resources; (2) secure adjustments in the distribution of income and wealth; and (3) secure economic stabilization.”⁴¹ Similarly, Joseph Pechman’s *Federal Tax Policy*,⁴² described as the “standard reference work on the United States tax system,”⁴³ begins its chapter, “Taxes and Economic Policy,” with an extensive discussion of

33. *Id.* at 11-14.

34. *Id.* at 14-16.

35. *Id.* at 11.

36. *Id.*

37. BORIS I. BITTKER, LAWRENCE M. STONE & WILLIAM KLEIN, *FEDERAL INCOME TAXATION* (6th ed. 1984).

38. *Id.* at 11.

39. *Id.* at 15-16.

40. See JOSEPH BANKMAN, WILLIAM A. KLEIN & DANIEL M. SHAVIRO, *FEDERAL INCOME TAXATION* (14th ed. 2006) (not discussing stabilization in its introductory chapter).

41. RICHARD MUSGRAVE, *THE THEORY OF PUBLIC FINANCE: A STUDY IN POLITICAL ECONOMY* 5 (1959).

42. JOSEPH A. PECHMAN, *FEDERAL TAX POLICY* (5th ed. 1987).

43. *Joseph A. Pechman Is Dead at 71*, N.Y. TIMES, Aug. 21, 1989, <http://www.nytimes.com/1989/08/21/obituaries/joseph-a-pechman-is-dead-at-71-aided-1986-income-tax-changes.html>.

“Stabilization Policy,” giving second billing to the role of tax policy in “promoting economic growth.”⁴⁴

By contrast, Louis Kaplow’s recent text on the theory of taxation attempted to trade off optimally between efficient allocation and redistribution of resources.⁴⁵ Kaplow explicitly notes that “macroeconomic . . . considerations are largely ignored.”⁴⁶

The exile of macroeconomic perspectives from consideration of tax policy was not simply a matter of casebook editing. Rather, it reflected a widespread consensus in favor of examining tax policy from a microeconomic—and not a macroeconomic—perspectives.⁴⁷

B. *The Great Moderation and the Role of the Income Tax in Economic Stabilization*

What happened to economic stabilization as a goal of tax policy? Stabilization’s fall from grace coincided with the era known as the “Great Moderation,” a period of stable economic growth that was enjoyed by most developed economies between 1983 and 2007.⁴⁸ During this period, a consensus developed within economics that fiscal policy was inappropriate for stabilization.⁴⁹ Monetary policy alone could handle the task of stabilizing the economy, so why muck up tax policy with an unnecessary role?

Keynesian macroeconomic policy also suffered, and continues to suffer, from academic distrust. An alternative school of macroeconomic theory, the “real business cycle” theory, argued that recessions were caused by shifts in

44. PECHMAN, *supra* note 42, at 9, 27.

45. LOUIS KAPLOW, *THE THEORY OF TAXATION AND PUBLIC ECONOMICS* (2008).

46. *Id.* at 4.

47. A rare exception to this general trend within the legal academy is Jeff Strnad, *Some Macroeconomic Interactions with Tax Base Choice*, 56 SMU L. REV. 171 (2003). Strnad does not examine the role of tax expenditures or other potential destabilizing forces lurking within the Tax Code; he focuses instead on the stabilizing properties of different tax bases (such as a consumption tax relative to an income tax). In recent years, there have been other contributions, including Brian Galle & Jonathan Klick, *Recessions and the Social Safety Net: The Alternative Minimum Tax as a Countercyclical Fiscal Stabilizer*, 63 STAN. L. REV. 187 (2010), which makes a macroeconomic argument using microeconomic foundations.

48. See, e.g., Steven J. Davis & James A. Kahn, *Interpreting the Great Moderation: Changes in the Volatility of Economic Activity at the Macro and Micro Levels*, J. ECON. PERSPS., Fall 2008, at 155.

49. See, e.g., Martin Eichenbaum, *Some Thoughts on Practical Stabilization Policy*, 87 AM. ECON. REV. 236, 236 (1997) (asserting that “there is now widespread agreement that countercyclical discretionary fiscal policy is neither desirable nor politically feasible”); Martin Feldstein, *The Role for Discretionary Fiscal Policy in a Low Interest Rate Environment* 1 (Nat’l Bureau of Econ. Research, NBER Working Paper No. 9203, 2002), available at <http://www.nber.org/papers/w9203.pdf> (stating that “there is now widespread agreement in the economics profession that discretionary ‘counter-cyclical’ fiscal policy has not contributed to economic stability and may have actually been destabilizing at particular times in the past”).

technology or demand for leisure rather than shortfalls in aggregate demand.⁵⁰ The real business cycle theorists argued that Keynesian stabilization policy lacked foundations in microeconomic behavior. While “New Keynesian” macroeconomists attempted to provide Keynesian perspectives with “microfoundations,” even the new Keynesians were mostly focused on the role of monetary policy in mitigating recessions.⁵¹

The mutually reinforcing effects of the Great Moderation led macroeconomists to the conclusion that the “central problem of depression prevention has been solved.”⁵² Tax scholars responded by essentially ceasing to examine the role of the Tax Code from a macroeconomic stabilization perspective.

In truth, economic stabilization did not disappear as an explicit goal of income tax policy during the years of the Great Moderation. The large tax cuts of 2001 and 2003, for example, were explicitly motivated by a desire to stabilize the economy in the face of the bursting of the Internet bubble and the recessionary impacts of the 9/11 attacks.⁵³ Similarly, the government of Japan was widely criticized on Keynesian grounds for forestalling a nascent recovery with ill-advised tax increases in 1997.⁵⁴

Nor were the years of the Great Moderation quite as moderate as supposed. While U.S. GDP growth was quite stable,⁵⁵ asset prices experienced some notable crises, such as the Long Term Capital Management crisis.⁵⁶ Moreover, foreign nations experienced some notably immoderate economic cycles. Japan, for example, suffered through slow or negative economic growth throughout the “lost decade” of the 1990s.⁵⁷ Many developing countries in

50. See Sergio Rebelo, *Real Business Cycle Models: Past, Present, and Future 2* (Mar. 2005) (unpublished manuscript), available at <http://www.kellogg.northwestern.edu/faculty/rebelo/htm/rbc.pdf> (explaining that “‘real business cycle’ models [place] emphasis on the role of real shocks, particularly technology shocks, in driving business fluctuations”).

51. For an opinionated summary of these developments, see Paul Krugman, *How Did Economists Get It So Wrong?*, N.Y. TIMES, Sept. 2, 2009, <http://www.nytimes.com/2009/09/06/magazine/06Economic-t.html>.

52. Robert E. Lucas, Jr., *Macroeconomic Priorities*, 93 AM. ECON. REV. 1, 1 (2003).

53. See, e.g., Paul Krugman, *Hitting the Trifecta*, N.Y. TIMES, Dec. 7, 2001, <http://www.nytimes.com/2001/12/07/opinion/07KRUG.html> (noting that the Bush Administration “now says that the [2001] tax cut was necessary to fight the current recession”).

54. See Jacob M. Schlesinger & Miho Inada, *Consumption Tax Hikes: A Short Unhappy History*, WALL ST. J.: JAPAN REAL TIME BLOG (June 17, 2010, 7:00 PM), <http://blogs.wsj.com/japanrealtime/2010/06/17/consumption-tax-hikes-a-short-unhappy-history> (“Ryutaro Hashimoto succeeded in pushing the national sales tax up to 5% in 1997. It was blamed by critics for snuffing out Japan’s nascent recovery from the burst bubble and, ultimately, for the ‘lost decade.’”).

55. See Peter M. Summers, *What Caused the Great Moderation? Some Cross-Country Evidence*, FED. RES. BANK KAN. CITY ECON. REV., 3d Quarter 2005, at 5, 6, available at <http://www.kansascityfed.org/publicat/econrev/pdf/3q05summ.pdf> (documenting a sharp decrease in the volatility of economic activity in the United States and other countries).

56. See Olivier Blanchard, Giovanni Dell’Ariccia & Paolo Mauro, *Rethinking Macroeconomic Policy*, 42 J. MONEY, CREDIT & BANKING 199, 206-207 (2010).

57. *Id.* at 201.

Asia, including Indonesia, Thailand, and South Korea, suffered through acute crises during the years 1997-1998, with exchange rates plunging over 30% in a short period and output shrinking by over 10% in some countries.⁵⁸

Whatever the reality of the period known as the Great Moderation, the prolonged and painful Great Recession that began in 2007 clearly marked an end to a period of relative stability for the world economy. The recession also ended the academic consensus in favor of monetary policy as the sole lever for stabilizing the economy.⁵⁹ Stabilization motivated the significant tax cuts enacted in 2008 and 2009 following the collapse of the financial sector. Many tax policy experts supported these cuts explicitly for their stabilization benefits.

The absence of stabilization from academic policy discourse in income tax does not simply require us to relearn the old lessons presented in Section II. Today's Code is much different from the Code of forty years ago, and many of the newly salient aspects of the Tax Code have never been carefully parsed from a stabilization perspective. The remainder of the Article illustrates what is missing from the current academic and policy debate by bringing macroeconomic perspectives to bear on tax expenditures and loss limitations, two staples of legal tax policy analysis that have never before been examined from a macroeconomic perspective. I first turn to the subject of tax expenditures.

III. Tax Expenditures

Tax expenditures have assumed an increasingly central role in both the Tax Code and in academic debates about tax policy. This Part summarizes the state of academic knowledge before providing a new macroeconomic perspective on tax expenditures in the following section.

Tax expenditures are defined as "revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability."⁶⁰ In other words, tax expenditures represent reductions from the revenue that would be collected under a comprehensive income tax. Prominent examples of tax expenditures include the deductibility of mortgage interest and charitable contributions and the exclusion of employer-provided health benefits from income. Although the dollar amount of tax expenditures has generally been rising, the costs of tax expenditures as a share of output remained relatively constant throughout the

58. See Takatoshi Ito & Kiyotaka Sato, *Exchange Rate Changes and Inflation in Post-Crisis Asian Economies: Vector Autoregression Analysis of the Exchange Rate Pass-Through*, 40 J. MONEY, CREDIT & BANKING 1407, 1410-12 (2008).

59. See Taylor, *supra* note 3, at 550 (noting, but arguing against, "a dramatic revival of interest in discretionary fiscal policy" in early 2009).

60. Congressional Budget and Impoundment Control Act of 1974, 2 U.S.C. § 622(3) (2006).

George W. Bush Administration.⁶¹ This occurred in spite of an overall decrease in taxes, which would ordinarily reduce the cost of tax expenditures. Tax expenditures in fiscal year 2012 are estimated to equal approximately 6.7% of GDP.⁶² After the tax reform of 1986, by contrast, tax expenditures had totaled approximately 5% of GDP.⁶³

Tax expenditures are viewed as substitutes for government expenditures. The Joint Committee on Taxation states that “special income tax provisions are referred to as tax expenditures because they may be considered to be analogous to direct outlay programs, and the two can be considered as alternative means of accomplishing similar budget policy objectives.”⁶⁴ Instead of directly providing health insurance, the government subsidizes healthcare through the Tax Code by excluding employer-provided health coverage from income. On a smaller scale, the government encourages use of solar power by providing tax credits for those who install solar panels. Alternatively, the government could facilitate solar power by directly purchasing solar panels and distributing them to citizens.

The relative efficacy of tax expenditures with respect to other means of attaining government objectives is the subject of a long-running scholarly debate. From the earliest policy analysis of tax expenditures, scholars have noted that they have regressive effects.⁶⁵ The value of the subsidy inherent in a tax expenditure is equivalent to the marginal rate that a taxpayer pays on her income. Because income tax rates are progressive, with marginal rates increasing with income, higher income taxpayers enjoy a larger subsidy. A taxpayer in the 35% bracket avoids thirty-five cents in income taxes when each dollar of her employer-provided health insurance is excluded from tax. A taxpayer in the 10% bracket, by contrast, only enjoys a ten-cent subsidy for each dollar of employer-provided health insurance that she receives.

This regressivity has been the subject of recent academic and political discourse. In a recent article, Lily Batchelder, Fred Goldberg, and Peter Orszag advocate the use of uniform refundable tax credits rather than tax expenditures in the form of deductions and exclusions.⁶⁶ Uniform refundable tax credits ameliorate the regressive nature of tax expenditures. Uniformity implies that all

61. See Gillian Reynolds & C. Eugene Steuerle, *Tax Expenditures: How Have They Changed over Time*, TAX POLICY CTR. (July 20, 2009), <http://www.taxpolicycenter.org/briefing-book/background/expenditures/change.cfm> (noting that tax expenditures “have stayed within a percentage point of 7 percent of GDP since 1999”).

62. See Eric J. Toder, Benjamin H. Harris & Katherine Lim, *Distributional Effects of Tax Expenditures*, TAX POLICY CTR. 1 (July 21, 2009), http://www.taxpolicycenter.org/UploadedPDF/411922_expenditures.pdf.

63. See Reynolds & Steuerle, *supra* note 61.

64. STAFF OF JOINT COMM. ON TAXATION, PUB. NO. JCX-15-11, BACKGROUND INFORMATION ON TAX EXPENDITURE ANALYSIS AND HISTORICAL SURVEY OF TAX EXPENDITURE ESTIMATES 2 (2011), available at <http://www.jct.gov/publications.html?func=startdown&id=3740>.

65. See STANLEY S. SURREY & PAUL R. MCDANIEL, TAX EXPENDITURES 103 (1985).

66. Lily L. Batchelder, Fred T. Goldberg, Jr. & Peter R. Orszag, *Efficiency and Tax Incentives: The Case for Refundable Tax Credits*, 59 STAN. L. REV. 23 (2006).

individuals get the same credit (e.g., 15% of expenditures) regardless of their income. As a result, uniform tax credits do not provide regressive benefits.

In 2009, the Obama Administration proposed to replace the income tax deduction for charitable giving with a uniform credit.⁶⁷ This reform would have given the same subsidy proportion to all homeowners and charitable givers. The attempt failed, however.

Academics have also devoted considerable energy to debating the efficiency of tax expenditures relative to direct spending. Direct government spending may “crowd out” alternative sources of public goods, as citizens choose to refrain from duplicating government expenditures.⁶⁸ Alternatively, tax expenditures “crowd in” private expenditures on public goods by making them appear cheaper to private givers. Under some conditions, there will be more spending on public goods if they are subsidized by the government than if they are provided directly by the government.⁶⁹ In addition, money on public goods may be spent more efficiently if there must be private sector “buy in,” as is the case with tax expenditures but not with direct government spending.⁷⁰ David Weisbach and Jacob Nussim, by contrast, argue from an institutional design perspective that tax expenditures are efficient when public good provision is best administered through the Department of the Treasury, while government spending is preferred when other agencies have the necessary expertise.⁷¹

These recent articles, and many others, make important contributions to our understanding of the equity and efficiency of tax expenditures. They entirely overlook, however, the impact of tax expenditures on macroeconomic stabilization. This oversight is an important one. As the following Part demonstrates, some tax expenditures can emerge as a significant destabilizing force within the Tax Code.

IV. Elements of the Income Tax Code from a Macroeconomic Perspective

If tax expenditures are substitutes for government spending, then a tax expenditure’s macroeconomic consequences should be compared with those of a government spending program that aims to solve an identical social problem.

67. See, e.g., Suzanne Perry, *Obama’s Plan To Reduce Charitable Deductions for the Wealthy Draws Criticism*, CHRON. PHILANTHROPY (Feb. 26, 2009), <http://philanthropy.com/article/Obamas-Plan-to-Reduce/63024>.

68. JONATHAN GRUBER, PUBLIC FINANCE AND PUBLIC POLICY 528-31 (2d ed. 2007).

69. *Id.*

70. See, e.g., David M. Schizer, *Subsidizing Charitable Contributions: Incentives, Information and the Private Pursuit of Public Goals*, 62 TAX L. REV. 221 (2009) (arguing that the charitable deduction allows individuals to monitor the quality of the provision of public goods).

71. David A. Weisbach & Jacob Nussim, *The Integration of Tax and Spending Programs*, 113 YALE L.J. 955, 967-83 (2004).

Federal government spending programs are rarely procyclical.⁷² Indeed, many social welfare programs, such as food stamps and unemployment insurance, are countercyclical. As people lose jobs or receive lower incomes in recessions, food stamp and unemployment insurance payments rise.⁷³ In these situations, government spending stabilizes the economy. For simplicity, however, this Article assumes that the direct government spending program that substitutes for a tax expenditure makes constant expenditures over the course of the business cycle. If anything, this understates the relative procyclical effect of a tax expenditure.

Indeed, government spending policy actively seeks to stabilize the economy. During the Great Recession, for example, Congress in 2009 passed the ARRA, a stimulus package of more than \$800 billion.⁷⁴ As the recession continued, Congress passed an extension of the Bush tax cuts in late 2010 intended to stimulate the economy.⁷⁵ The frequent references to countercyclical fiscal policy as a justification for tax and spending policy make the hidden procyclical aspects of the Tax Code examined here all the more problematic and unexpected. I will now compare the macroeconomic effects of some of the largest tax expenditure provisions with those of hypothetical governmental programs that serve similar aims. While almost all tax expenditure programs are destabilizing to some degree, different provisions have different effects. This Part will examine most of the largest tax expenditure programs, demonstrating that many of them have important and overlooked effects that make the business cycle more volatile.

Before continuing, it is important to emphasize that this Part examines income tax provisions that remain constant in form over the business cycle. If Congress chooses to change the provisions in tune with the business cycle, then the effects may be different. For example, the next section examines the

72. State-level spending, by contrast, frequently is procyclical. Most states have a balanced-budget requirement. When the economy shrinks, state revenues shrink. States must therefore cut spending in order to adhere to the balanced budget requirement. From a macroeconomic perspective, such balanced budget rules are problematic, exacerbating the economic cycle. For reviews of this issue, see, for example, David Scott Gamage, *Preventing State Budget Crises: Managing the Fiscal Volatility Problem*, 98 CALIF. L. REV. 749, 755 (2010), which notes that state-specific constraints “have created significant fiscal volatility as the state economies have cycled through booms and busts”; James M. Poterba, *Budget Institutions and Fiscal Policy in the U.S. States*, 86 AM. ECON. REV. 395, 395-400 (1996), which describes how state balanced budget requirements constrict spending; and Stephanie Schmitt-Grohé & Martín Uribe, *Balanced-Budget Rules, Distortionary Taxes, and Aggregate Instability*, 105 J. POL. ECON. 976, 976-77 (1997), which notes that “[a] traditional argument against a balanced-budget rule is that it amplifies business cycles by stimulating aggregate demand during booms via tax cuts and higher public expenditures and by reducing demand during recessions through a corresponding fiscal contraction”.

73. See BAUMOL & BLINDER, *supra* note 21, at 225.

74. See *The Recovery Act*, *supra* note 10.

75. For an example of the stimulative intent of the policy, see Lori Montgomery, Shailagh Murray & William Branigin, *Obama Signs Bill To Extend Bush-Era Tax Cuts for Two More Years*, WASH. POST, Dec. 17, 2010, <http://www.washingtonpost.com/wp-dyn/content/article/2010/12/16/AR2010121606200.html>.

exclusion of employer-provided healthcare, presuming that the exclusion stays constant over the business cycle. If the federal government eliminated the exclusion during booms and reinstituted it during recessions, the predictions developed in this Part would not apply. Most tax expenditures, however, are quite long-lived and do not appear to change form over the business cycle.

A. *Destabilizing Tax Expenditures*

1. Exclusion for Employer-Provided Health Insurance: Section 105

Let us assume that the government wants to subsidize health insurance. In a direct spending program, the government could provide insurance directly, as with the United Kingdom's National Health Service, or pay for private provision of healthcare, as the U.S. government does with Medicare. In both of these contexts, the state of the business cycle does not affect government spending on healthcare, so long as individual demand for healthcare does not change with the level of the economy.⁷⁶

Now consider I.R.C. Section 105, which provides that employer-provided health insurance is excluded from income. The total value of this subsidy to employer-provided insurance is estimated to be worth \$155 billion in 2010.⁷⁷ (By comparison, note that the "massive" Obama stimulus package of 2009 provided roughly \$800 billion in spending and tax cuts, spread out over three years.⁷⁸) Suppose that employers simply provide health insurance to all employees and that the exclusion is worth \$3000 per employee. When there is a negative shock to aggregate demand, employers build up inventory and ultimately fire workers. Now suppose that, using savings, the unemployed worker purchases health insurance. If the worker is not considered "self-employed," then the cost of the insurance is not tax deductible. The government is using \$3000 less to subsidize health insurance after the worker gets fired.

Section 105 therefore destabilizes the economy. The newly unemployed worker loses the exclusion worth \$3000 and so has less income to expend than she would otherwise, causing aggregate demand to shrink even further than it did initially and triggering the multiplier effect.

The greater the sensitivity of employer-provided health insurance to the business cycle, the more the Section 105 exclusion destabilizes. If recessions

76. Interestingly, there is some evidence that mortality is weakly procyclical (people die at higher rates in booms than in recessions). See Christopher J. Ruhm, *Are Recessions Good for Your Health?*, 115 Q.J. ECON. 617, 617 (2000). At the same time, individuals have more time to consume healthcare during recessions. The total impact of these factors on healthcare demand over the business cycle is indeterminate.

77. See OFFICE OF MGMT. & BUDGET, ANALYTICAL PERSPECTIVES: BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 2010, at 308 (2009) [hereinafter OMB, YEAR 2010], available at <http://www.gpoaccess.gov/usbudget/fy10/pdf/spec.pdf>.

78. See *The Recovery Act*, *supra* note 10 (placing the revised value of the ARRA at \$840 billion).

are characterized by widespread job losses and loss of work related health insurance, then Section 105 exerts a considerable destabilizing force. By contrast, if no one loses employer-provided health insurance in recessions, then the exclusion does not exert a destabilizing force.

The evidence suggests that the number of workers covered by employee provided health insurance is quite sensitive to the business cycle. First, Okun's law predicts that for each 2% decrease in output, the unemployment rate rises by 1%. In the Great Recession, unemployment rates increased by even more than that level.⁷⁹ With more workers unemployed, more people are without employer-provided health insurance even if the percentage of employed workers with employer provided health insurance stays constant. Second, the proportion of employed workers with employer provided health coverage decreased in the Great Recession, as employers cut back on health insurance coverage even for the workers that were not laid off.⁸⁰ The business cycle sensitivity of employer-provided health insurance implies that this \$160 billion program has an important destabilizing effect on the economy.

The estimated cost of the Section 105 exclusion provides suggestive evidence that the exclusion is destabilizing. In the wake of the Great Recession, the estimated cost of the Section 105 exclusion declined for the first time in memory, dropping from approximately \$134 billion in fiscal year 2007 to \$131 billion the following year.⁸¹ This decline marked a sharp deviation from a decade long trend of rapidly increasing costs of the Section 105 exclusion. By 2009, however, the cost of the exclusion resumed its secular upward trend, rising to \$144 billion. Nevertheless, the rate of increase in the tax expenditure during the Great Recession is far below its trend during the previous period of economic growth.⁸² Given the incredibly high rate of healthcare price

79. See Mary Daly & Bart Hobijn, *Okun's Law and the Unemployment Surprise of 2009*, FED. RES. BANK S.F. ECON. LETTER 1 (2010), available at <http://www.frbsf.org/publications/economics/letter/2010/el2010-07.pdf>.

80. See Paul Fronstin, *The Impact of the Recession on Employment-Based Health Coverage*, EMP. BENEFIT RESEARCH INST. 1 (2010), available at http://www.ebri.org/pdf/briefspdf/EBRI_IB_05-2010_No342_Reccsn-HlthBens.pdf (stating that "employment-based coverage [was] eroding" during the Great Recession).

81. See Tax Expenditure Data, *supra* note 11. This dataset records the final estimate provided by the Office of Management and Budget for the value of the tax expenditure in a particular year. The final estimate is likely to be the most accurate because it involves no projections and relies entirely on past events. Data for the value of a tax expenditure in fiscal year 2007, for example, are therefore collected from the 2009 Office of Management and Budget report. See, e.g., OFFICE OF MGMT. & BUDGET, ANALYTICAL PERSPECTIVES: BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 2009 (2008) [hereinafter OMB, YEAR 2009], available at <http://www.gpoaccess.gov/usbudget/fy09/pdf/spec.pdf>. The data set should be treated with some degree of skepticism, since it aggregates a myriad of factors, such as changes in marginal tax rates and program eligibility, as well as business cycle effects.

82. Between 2004 and 2006, the cost of the exclusion rose more than 20%. The 2007-2009 increase in the cost of the exclusion was below 10%, with healthcare costs increasing throughout the period. See Tax Expenditure Data, *supra* note 11.

inflation,⁸³ it is almost certain that a government-provided healthcare subsidy would have increased substantially.

Under an income tax with progressive rates, the destabilizing effect of Section 105 is even more pronounced. Suppose—counterfactually—that no one loses their job in recessions and that all employees retain employer-provided health insurance. Instead, employers lower salaries for all employees due to a recession. If everyone's income is reduced, then a progressive tax system implies that at least some individuals' marginal tax rates decrease as they shift from a higher tax bracket to a lower one. For these individuals, the effective government subsidy for health insurance goes down. An individual in a 35% income tax bracket enjoys a thirty-five-cent government subsidy for each dollar of health insurance that they receive. If a recession causes that individual's income to slump and moves them into a 25% income tax bracket, then they now receive only a twenty-five-cent subsidy per dollar of health insurance. The government contributes less in recessions than in booms.

In total, the exclusion of employer-provided health insurance from the income tax presents an extremely destabilizing government program. Alternative programs of direct government spending on healthcare would have much less of a destabilizing effect. Moreover, two features that assumed a salient role in examining the macroeconomic effect of the health insurance exclusion—the sensitivity of the expenditures to the business cycle and the progressivity of income tax rates—also play a large role in determining the macroeconomic effects of other tax expenditures.

2. The Tax Deductibility of Mortgage Interest: Section 163(h)

The second largest tax expenditure in the Tax Code is the deductibility of home mortgage interest. Section 163(h) home mortgage interest deductibility cost the federal fisc approximately \$92 billion in fiscal year 2010.⁸⁴ While the stability implications of the deductibility of mortgage interest are more ambiguous than the stability impacts of the health insurance exclusion, deductibility of home mortgage interest is also likely to destabilize the economy.

The purpose of Section 163(h) is to foster homeownership.⁸⁵ Instead of allowing homeowners to deduct the interest they pay on their mortgages, there

83. See, e.g., BUREAU OF LABOR STATISTICS, HEALTH CARE SPENDING: 1998, 2003, AND 2008 (2010), available at http://www.bls.gov/opub/focus/volume1_number8/cex_1_8.htm (last updated Aug. 2010) ("How have rising health care costs affected household budgets?").

84. See OMB, YEAR 2011, *supra* note 14, at 210 tbl.16-1.

85. Although there is "no evidence . . . that Congress thought much about this provision" when it added the mortgage interest deduction to the Tax Code in 1913, and Congress "certainly wasn't thinking of the interest deduction as a stepping-stone to middle-class homeownership," Roger Lowenstein, *Who Needs the Mortgage-Interest Deduction?*, N.Y. TIMES, Mar. 5, 2006, <http://www.nytimes.com/2006/03/05/magazine/305deduction.1.html>, congressional proponents of the

are a number of alternative means for the federal government to facilitate homeownership. The government could build homes and transfer them to deserving individuals for a subsidized price. Alternatively, the government could give buyers a fixed amount of cash each year that can be used to subsidize home purchases. The first-time homebuyer credit of 2008-2009 followed this pattern, providing a subsidy of \$8000 to first-time homebuyers.⁸⁶

These alternatives to Section 163(h) are unlikely to be destabilizing to the economy. The government would be reluctant to charge more for homes in recessions than in booms or to reduce the size of its homebuyer subsidy in recessions. The mortgage interest deduction, however, has almost exactly these perverse effects.

The amount of mortgage interest paid in a given year is likely to vary positively with the business cycle. In boom times, credit is generally freer,⁸⁷ so more individuals are able to acquire homes and take advantage of the 163(h) deduction. At the height of the housing boom in 2006, for example, 69% of Americans owned their homes, up from 65% a decade earlier.⁸⁸ Moreover, freer credit often means that homebuyers can take out a larger mortgage as a percentage of a home's value, enabling them to benefit from the mortgage interest deduction to a greater extent.

The onset of the Great Recession and the end of the credit and housing bubbles reduced the amount of mortgage interest paid by Americans.⁸⁹ Without

mortgage interest deduction later endorsed the homeownership rationale. As Senator Phil Gramm stated during the debates over the 1986 tax reform:

There is no basic principle in tax law that is more supported by the American people than the principle that you ought to be able to deduct interest on your home from your taxes. We have taken a position that home ownership is something that we want to promote, that that is an objective of our tax policy that is strongly supported, and it is reflected in this bill by the fact that you can deduct your mortgage interest payment on a first and second house . . .

132 CONG. REC. 13,591 (1986).

86. American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 1006, 123 Stat. 115, 316 (codified at I.R.C. § 36 (2006 & Supp. 2010)). For an IRS description of the program, see *First-Time Homebuyer Credit: Answers*, IRS, <http://www.irs.gov/newsroom/article/0,,id=187935,00.html> (last visited Oct. 11, 2011). The program is believed to have effectively supported housing prices. See, e.g., Victoria V. Corder, *Homeowners and Bondholders as Unlikely Allies: Allocating the Costs of Securitization in Foreclosure*, 30 BANKING & FIN. SERVICES POL'Y REP. 19, 19 (2011), available at http://www.weil.com/files/upload/Basel_III_May_2011.pdf (observing the "rebound in home prices that occurred between fall 2009 and spring 2010, as a result of the Obama Administration's first-time homebuyer tax credit").

87. See John Geanakoplos, *The Leverage Cycle*, in 24 NBER MACROECONOMIC ANNUAL 2009, at 1, 2 (Daron Acemoglu, Kenneth Rogoff & Michael Woodford eds., 2010).

88. *Housing Vacancies and Homeownership (CPS/HVS), Table 14: Homeownership Rates for the U.S. and Regions: 1965 to Present*, U.S. CENSUS BUREAU, <http://www.census.gov/hhes/www/housing/hvs/historic/files/histtab14.xls> (last visited Dec. 2, 2011).

89. The Census Bureau reports that mortgage debt went down from \$11.1 trillion at the end of 2007 to \$10.8 trillion at the end of 2009. See U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2011, at 742 tbl.1191 (2011), available at <http://www.census.gov/compendia/statab/2011/tables/11s1191.pdf>. Mortgage rates were over 6% at the

financing, fewer Americans were able to purchase homes, reducing the homeownership percentage.⁹⁰

A reduction in mortgage interest implies a reduction in the government subsidy for homeownership. If instead of making mortgage payments, people are spending their money elsewhere (for instance, on rent), then their tax burden rises for a given amount of income.⁹¹ With a higher tax burden, they have less disposable income. Aggregate demand therefore decreases, leading to lower employment and further declines in output due to the multiplier effect.

Because a mortgage is a long-term commitment, the sensitivity of mortgage interest payments to the business cycle is dampened. If, for example, 15% of mortgage obligations are terminated via repayment or default in any given year, then 85% of homeowners receive nearly the same mortgage interest deduction in the current year as they did in the previous year.⁹² Nevertheless, the amount of interest paid by those mortgages that do terminate in a given year is quite likely to be positively related to the business cycle, as previously described.

Another factor that is likely to make the mortgage interest deduction sensitive to the business cycle is the procyclicality of interest rates and inflation.⁹³ Since mortgage rates track interest rates, mortgage rates are generally higher in booms than in recessions. New mortgages obtained during a recession, as well as variable rate mortgages, both pay lower rates in recessions than in booms. This means that the value of the tax expenditure, which is directly related to the mortgage rate, is higher in booms than in recessions, even if the rate of homeownership remains constant.

A progressive income tax code makes the 163(h) mortgage interest deduction an even more destabilizing force. Suppose that there is an economic boom and everyone's earnings go up, but that everyone retains the same interest payments. Under these conditions, the marginal rate for some individuals paying mortgage interest rises. As a result, the effective government

end of 2007 and near 5% at the end of 2009. See *Historical Mortgage Interest Rates*, HSH.COM, <http://www.hsh.com/mtghst.html> (last visited Dec. 2, 2011). With lower interest rates and less debt, the value of interest payments must go down.

90. At the end of 2006, the U.S. homeownership rate was 68.9%. By the end of 2010, the homeownership rate was 66.5%. See *Housing Vacancies and Homeownership (CPS/HVS)*, *supra* note 88.

91. The added tax burden exists even if a homeowner stops making mortgage payments and defaults on her mortgage because the value of the home was less than the value of the mortgage. So long as the individual's income stays the same, the default moves spending from a tax favored area (mortgage interest) to a different area. As a result, the tax burden increases for a given amount of income; a taxpayer may pay higher taxes post default than pre-default. The increase in tax burden post default will be amplified if there is discharge of indebtedness income under Section 61(a)(12).

92. The value of the deduction is not the same because amortization implies that the portion of a mortgage payment devoted to principal and not interest increases each year.

93. See Olivier J. Blanchard & Mark W. Watson, *Are Business Cycles All Alike?*, in *THE AMERICAN BUSINESS CYCLE* 123 (Robert Gordon ed., 1986) (demonstrating correlations between interest rates, inflation, and the business cycle).

subsidy rate for homeownership goes up even if total mortgage payments remain the same. Implicit government spending supporting homeownership thereby goes up in boom times, contradicting the Keynesian policy for government spending. Because the tax expenditure subsidy for homeownership is hidden, it takes a procyclical form that would be almost unthinkable for a more transparent program of direct government spending.

Tax expenditure data support the theoretical suggestion that the deductibility of mortgage interest is a procyclical force. The revenue cost of the 163(h) mortgage interest deduction rose from \$62 billion in 2005⁹⁴ to approximately \$85 billion in 2007, when interest rates were relatively high and housing prices near their peak.⁹⁵ By 2009, the value of the 163(h) mortgage interest deduction fell below \$80 billion.⁹⁶ The decline reflected the dramatic fall in interest rates and the crash of the housing bubble associated with the Great Recession.

3. The Tax Expenditure for Charitable Giving: Section 170

The tax deductibility of donations to charitable organizations constitutes another important tax expenditure, costing approximately \$57 billion in income tax revenue in fiscal year 2010.⁹⁷ Like the exclusion of employer-provided health insurance just examined, the deductibility of charitable donations likely exerts a pronounced destabilizing force on the economy.

The government supports provision of public goods by making charitable contributions tax deductible through Section 170. Alternatively, the government could use government spending to produce public goods directly. It is unlikely that direct government provision of public goods would have a procyclical effect—the government would be unlikely to lower government spending on food for the poor or education during a recession.

The deductibility of charitable donations takes exactly this procyclical form, however. Donations to charity are a positive function of income. As a result, a negative shock to output leads to lower charitable donations. Because each dollar of charitable donations receives a subsidy from the government, lower donations mean that the government subsidy of public goods via the

94. See OFFICE OF MGMT. & BUDGET, ANALYTICAL PERSPECTIVES: BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 2007, at 288 tbl.19-1 (2006), available at <http://www.gpoaccess.gov/usbudget/fy07/pdf/spec.pdf>; Tax Expenditure Data, *supra* note 11. Note that I use the final estimate provided by the Office of Management and Budget for the value of the tax expenditure in a particular year, as the final estimate involves no projections and is likely to be most accurate. The 2005 figure is thereby derived from the fiscal year 2007 report.

95. See OMB, YEAR 2009, *supra* note 81, at 289 tbl.19-1; Tax Expenditure Data, *supra* note 11.

96. See OMB, YEAR 2011, *supra* note 14, at 210 tbl.16-1; Tax Expenditure Data, *supra* note 11.

97. See OMB, YEAR 2010, *supra* note 77, at 308 (including the separately listed tax expenditures on education and health).

charitable deduction decreases. Thus, subsidies for public goods go down in response to a negative shock to investment—exacerbating the initial effect of a negative shock to the economy.

Existing evidence suggests that charitable giving is quite sensitive to the state of the economy.⁹⁸ As a result, the government subsidy for public goods is extremely procyclical, rising sharply in boom times and falling during recessions.

The destabilizing effect of the deduction for charitable donations is exacerbated by progressive income tax rates. As mentioned above, progressive income tax rates imply that marginal income tax rates fall during recessions. Even if charitable giving remained constant over the business cycle, the revenue loss associated with the deductibility of such giving would decline in recessions.

Unlike the health insurance provision, charitable giving is something that can be “timed” by the giver without great cost. Progressive tax rates make charitable gifts more expensive in recessions than in booms. An individual in a 33% income tax bracket must give up sixty-seven cents of disposable income to give a dollar in charity. If a recession causes that individual’s income to slump and moves her into a 25% income tax bracket, then she now must give up seventy-five cents of disposable income to give a dollar in charity. Thus, the price of giving charity has gone up during recessions, further reducing the amount of charitable giving and increasing the procyclicality of the charitable giving tax expenditure.

Tax expenditure data support the theoretical prediction that the Section 170 deduction, which has a revenue cost of more than \$40 billion per year,⁹⁹ is destabilizing. In inflation adjusted terms, the value of the Section 170 charitable giving deduction rose more than 20% between the boom years of 2004-2006, while the deduction’s value declined by nearly 8% during the 2007-2009 period of the Great Recession.¹⁰⁰

4. The Deductibility of State Income Tax Payments: Section 164(a)(3)

Section 164(a)(3) of the Tax Code permits taxpayers to deduct state and local income tax payments when calculating taxable income. This deduction cost approximately \$30 billion in fiscal 2010.¹⁰¹ The deductibility of state

98. See, e.g., Albert Ade Okunade, Raymond Walsh, Jr. & Phanindra V. Wunnava, *Charitable Giving of Alumni: Micro-Data Evidence from a Large Public University*, 53 AM. J. ECON. & SOC. 73, 81 (1994) (“Charitable giving of alumni is also found to be highly sensitive to the business cycle.”); Daniel Gross, *The Coming Charity Crisis*, SLATE, (June 12, 2008), http://www.slate.com/articles/business/moneybox/2008/06/the_coming_charity_crisis.html (“[C]haritable giving fell in real terms . . . in years in which the economy was in recession, or in years in which there was a significant stock market dislocation.”).

99. See OMB, YEAR 2010, *supra* note 77, at 301 tbl.19-1.

100. See Tax Expenditure Data, *supra* note 11.

101. See OMB, YEAR 2010, *supra* note 77, at 308 tbl.19-3.

income taxes represents a subsidy to state government. The state government, like charitable organizations, can raise revenue cheaply because the government effectively subsidizes the payments that are made by state taxpayers at their marginal rates.

In the alternative, the federal government could aid state governments directly by simply writing a check to the states. It is unlikely that the government would reduce direct funding for state government in recessions and increase funding in booms, as this would have an obviously destabilizing effect on the economy. Section 164(a)(3), however, implies that the government is unwittingly acting in exactly such a destabilizing manner.

By now the drill is familiar. State income tax collections—by definition—vary with output. Income tax collections are higher in booms and shrink in recessions because incomes are higher in booms and shrink in recessions. Section 164(a)(3) chips in a federal subsidy for each dollar paid in state income taxes. When there are fewer such taxes, the size of the 164(a)(3) subsidy is smaller.¹⁰²

Here too, progressive tax rates exacerbate the destabilizing effect of the tax expenditures. When a state income taxpayer is in the 35% bracket, the federal government chips in thirty-five cents of each dollar that the taxpayer pays to the state. If the taxpayer moves down to the 28% bracket as a result of lower income, the federal government now only contributes twenty-eight cents of each dollar. Again, the size of the federal subsidy embodied by the tax expenditure rises and falls with the economy.

The Section 164(a)(3) deduction for state income taxes, like the Section 170 deduction for charitable gifts, the Section 105 exclusion for employer-provided healthcare, and the Section 163(h)(2)(D) allowance of a deduction for home mortgage interest, exerts yet another powerful but unexpected destabilizing force on the economy. Indeed, this is true of any tax break for a consumption expenditure that positively correlates with the business cycle. What makes the four tax expenditures analyzed here particularly destabilizing are their large size (the programs have a combined revenue cost of \$240 billion, roughly equal to one third of annual defense spending¹⁰³) and the sensitivity of their expenditures to the state of the economy. But tax expenditures for consumption do not represent the only form of destabilizing tax expenditure. Investment incentives can also have previously unnoticed destabilizing effects on the economy.¹⁰⁴

102. The Alternative Minimum Tax mitigates this effect. See Galle & Klick, *supra* note 47, at 189.

103. See OMB, YEAR 2010, *supra* note 77, at 392 tbl.24-13.

104. Evaluating the empirical effects of the deductibility of state income taxes is complicated by data deficiencies. The estimated revenue effects of the tax expenditure for the year 2008, for example, are reported differently in the 2009 and 2010 reports from the Office of Management and Budget. Compare OMB, YEAR 2009, *supra* note 81, at 291 (addendum), with OMB, YEAR 2010, *supra* note 77, at 302 (addendum).

5. Tax Expenditures for Investment

The Tax Code is replete with incentives for businesses to invest in capital equipment or new employees. Examples include the accelerated depreciated schedule of Section 168 of the Code and the expired Section 41 credit for research development costs. In place of these tax expenditures, the federal government could fund research and investment directly and distribute the results to corporations. If structured this way, it is unlikely that these programs would be procyclical. The knowledge to be gained from basic research and development for example, should not vary over the business cycle.

In spite of their small size, tax credits for business investment and research can have important destabilizing effects. This occurs because investment and research spending are extremely sensitive to the state of the economy. For example, research and development spending increased by 12% in the boom year of 1999, but grew by less than 1% in the recessionary year of 2002.¹⁰⁵ This extreme sensitivity to the business cycle means that the value of the government subsidy implied by the tax expenditure varies widely from year to year. In boom years, when investment is extremely high, the government provides a high level of subsidy. In recessions, by contrast, investment and research shrink dramatically, and the tax subsidy for investment sinks dramatically as well. Thus, there may be large and procyclical variation in the value of business directed tax expenditures in spite of the small average size of such expenditures.

Tax expenditures for investment provide an ideal place to examine the difference between a tax policy that is constant over the business cycle and a policy that varies over the business cycle. The above analysis assumed that tax expenditures for investment were constant over the business cycle. As a result, businesses had no reason to bring forward or delay investment for tax purposes. Instead, they simply raised and lowered investment in accord with business cycle dynamics. As a result, the value of deductions and credits for research and experimentation activities fell from \$12.62 billion in fiscal year 2008 to \$9.38 billion in fiscal year 2010.¹⁰⁶

If incentives for investment change with the business cycle, then tax expenditures may become stabilizing. For example, if research expenses can be fully deducted in recessionary years but only capitalized in boom years, then firms will have a tax incentive to increase research expenses in recessions.

To create such price incentives to invest in recessions rather than in booms, Congress must be able to time changes in tax treatment or rates with the

105. See *GDP 2.7% Higher If R&D Treated as Investment*, CREDIT WRITEDOWNS (July 1, 2010, 8:00 AM), <http://www.creditwritedowns.com/2010/07/gdp-higher-if-research-and-development-treated-as-investment.html>.

106. See OMB, YEAR 2010, *supra* note 77, 299 tbl.19-1 (adding line 7 ("Expensing of research and experimentation expenditures (normal tax method)") and line 8 ("Credit for increasing research activities"))).

business cycle. A considerable amount of research, however, casts doubt on the government's ability to achieve this goal.¹⁰⁷

B. Tax Expenditures with Stabilizing or Neutral Effects

At this point, you may be wondering if any tax expenditure is stabilizing, or at least neutral with respect to the business cycle. A tax expenditure can be stabilizing under one of three conditions: (1) if the expenditure itself is countercyclical—going up in recessions and down in booms; (2) if the expenditure benefits saving rather than consumption or investment; or (3) if there is a phase-out to the expenditure and more individuals are impacted by the phase-out than by the program's direct affect. This subsection explores each of these possibilities in turn.

1. Countercyclical Expenditures

Most expenditures are procyclical. As income rises, people spend more on most goods. Most does not mean all, however. "Inferior goods" are goods for which spending decreases as income rises. An example of an inferior good might be public transportation. Most individuals prefer to own a car. When incomes are low, however, they may choose to travel via public transportation because they cannot afford a car. If their income rises, they will ditch public transportation, spending less on it, in favor of purchasing a car.

As a result, the exclusion from income tax of employer-provided transit passes¹⁰⁸ may be a tax expenditure that has stabilizing effects. In a recession, more individuals may seek the tax favored transit passes as they can no longer afford a car. The value of the government subsidy for public transportation rises in recessions because more taxpayers take advantage of the subsidy. The subsidy falls in booms because more taxpayers choose not to receive employer-provided transit passes. The exclusion therefore has a countercyclical effect.

The exclusion for employer-provided transit passes is a very small tax expenditure, costing merely \$530 million in revenue in fiscal year 2010.¹⁰⁹ Moreover, the stabilizing effect of the increase in uptake of passes during recessions may be offset by progressive tax scales. While more people may be receiving the subsidy during recessions, the rate at which they are subsidized

107. See, e.g., Roger H. Gordon & Dale W. Jorgenson, *The Investment Tax Credit and Counter-Cyclical Policy*, in *PARAMETERS AND POLICIES IN THE U.S. ECONOMY* 275, 276 (Otto Eckstein ed., 1976) (observing that the investment tax credit was "highly detrimental to economic stability" from 1960-1976); Gene Steuerle, *Can Policymakers Time the Ending of Macroeconomic Incentives? Part Two: What Happens When Temporary Investment Incentives End?*, 95 *TAX NOTES* 441 (2002) (arguing that accelerated depreciation will result in a corresponding decline in investment that may erase the countercyclical macroeconomic goals of the tax policy).

108. I.R.C. § 132(f)(1)(B) (2006) excludes an employer-provided transit pass from taxation as a "qualified transportation fringe benefit."

109. See OMB, *YEAR 2010*, *supra* note 77, at 300 tbl.19-1 (line 84).

will go down on average because they have lower incomes due to the recession. If usage of employer-provided transit passes is only slightly countercyclical, then the impact of progressive tax rates to decrease the implicit spending may outweigh the value of the increased uptake rate.

In any case, tax expenditures for countercyclical goods can be stabilizing, costing the government more in recessions than in booms. Other potentially stabilizing tax expenditures include the exclusion of public assistance benefits from tax and the exclusion of social security benefits for disabled workers from tax.

Not surprisingly, the combined value of the potentially stabilizing expenditures is much lower than the value of the destabilizing expenditures. This occurs because most expenses are procyclical, with the small exception of expenses that are substitutes for something better, such as a car or a job that disqualifies the taxpayer from benefiting from the exclusion for public benefits or disability payments.

2. 401(k) Plans and Other Savings Incentives

Taxpayers enjoy the ability to defer income taxes by saving through tax expenditure programs such as I.R.C. Section 401(k), “Keogh”, and Individual Retirement Accounts (IRAs). These tax expenditure programs deprived the fisc of more than \$80 billion in 2010.¹¹⁰

Tax expenditures for saving have very different macroeconomic effects than expenditures for forms of consumption or investment. This occurs because money that is saved does not contribute to aggregate demand. In a Keynesian economy, if individuals, firms, and the government each seek to save all of their income, then total output would be zero, a problem known as the paradox of thrift.¹¹¹ Money spent on consumption or investment, by contrast, depletes inventories and has a multiplier effect on total output.

Tax-preferred savings are capped.¹¹² If individuals are reaching the cap in both recessions and booms, then tax preferences for savings do not fluctuate with the business cycle, but rather remain constant. If taxpayers do not reach the cap and increase 401(k) saving in response to increased income, then the government “spends” more subsidizing savings when times are good than when times are bad.

110. See *id.* at 305 tbl.19-1 (line 142 (401(k) plans), line 145 (Keogh plans), and line 143 (Individual Retirement Accounts)).

111. See JOHN MAYNARD KEYNES, *THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY* 84 (1936). Although Keynes is famous for this idea, some argue that it did not originate with him. See Robert T. Nash & William P. Gramm, *A Neglected Early Statement of the Paradox of Thrift*, 1 HIST. POL. ECON. 395 (1969) (noting that John Mackinnon Robertson explicitly stated the paradox of thrift as early as 1892).

112. The maximum allowable employee contribution to Section 401(k) plans in 2011 was \$16,500. See *401(k) Resource Guide—Plan Participants—Limitation on Elective Deferrals*, IRS, <http://www.irs.gov/retirement/participant/article/0,,id=151786,00.html> (last updated Oct. 27, 2011).

This extra government “spending,” however, does not have the same destabilizing effect that it would with respect to consumption and investment tax expenditures. In order for taxpayers to benefit from the tax expenditure, they must save more of their income. The more that they save, the less a given initial increase in output and wages is subject to a multiplier effect. As a result, the tax expenditure for saving does not destabilize the economy to nearly the same degree as comparatively costly tax expenditures dedicated to consumption expenditures.

A tax expenditure with a progressive tax system may even have a stabilizing effect. When output increases, marginal tax rates rise. The value of the government subsidy for saving therefore rises. Because the money is being saved, however, there is no multiplier effect on the extra government spending. Moreover, a progressive tax structure makes saving cheaper in boom times than in busts. A dollar of savings costs sixty-five cents when an individual is in a 35% bracket, but costs ninety cents if a recession pushes the individual into the 10% bracket. All things equal, individuals will therefore prefer to save more in booms and consume more in busts. This counteracts the effect of the shock that caused the boom or bust in the first place.

Whatever the exact effects of tax expenditures for saving on economic stability, the foregoing makes it clear that these effects are less destabilizing than otherwise similar tax expenditures devoted to elements of consumption or investment. In addition, the stabilizing effect of the cap on tax preferred savings highlights the potentially stabilizing effects of tax expenditure phase-outs.

C. Tax Expenditures with Phase-Outs and the Standard Deduction

Many prominent tax expenditures are subject to phase-outs. A phase-out implies that taxpayers above certain income levels are denied the right to benefit from certain taxes. For example, Section 68 of the Tax Code caps certain itemized deductions for high-income taxpayers.¹¹³ For all taxpayers with incomes above \$159,950 in 2007,¹¹⁴ itemized deductions were reduced by 1% for each dollar of adjusted gross income above the phase-out threshold.¹¹⁵ Similarly, the earned income tax credit for an individual with two children acts as a negative income tax up to \$12,780 and then plateaus (ceasing to act as a negative marginal tax) until income reaches \$16,690.¹¹⁶ The credit then begins to phase out as income rises, so that there is no credit for individuals who have

113. I.R.C. § 68 (2006). Some tax expenditures, such as employer-provided health benefits, are excluded from income and therefore are not subject to the phase-out.

114. See Kevin McCormally, *Sneak Peek at 2008 Tax Savings*, KIPLINGER (Sept. 19, 2007), <http://www.kiplinger.com/features/archives/2007/09/taxsavings.html>.

115. The 1% comes from applying 68(f) to 68(a). In 2010 there is no phase-out on deductions. See I.R.C. § 68(g) (2006).

116. See *Historical EITC Parameters*, TAX POL’Y CTR. (Jan. 20, 2011), http://www.taxpolicycenter.org/taxfacts/Content/PDF/historical_eitc_parameters.pdf; see also I.R.C. § 32 (2006) (setting forth eligibility under the Earned Income Tax Credit).

two children and who earn more than \$40,964.¹¹⁷ The Alternative Minimum Tax (AMT) also has many properties of a phase-out. By ensuring that taxpayers pay a minimum amount of tax for a given gross income, the AMT effectively phases out some deductions (such as the deduction for state income taxes) when these deductions grow larger.¹¹⁸ Phase-outs negate some of the destabilization properties of tax expenditures.

1. The Macroeconomic Impacts of Phase-Outs

Given that tax expenditures exist, the introduction of a phase-out stabilizes the economy in the presence of a shock. If tax expenditures are generally destabilizing (as established above), then the elimination of tax expenditures for some segment of taxpayers necessarily has a stabilizing effect. In addition, phase-outs make taxes more progressive by raising taxes (denying expenditures) on those with higher incomes. As discussed above, progressive taxes stabilize because downward shocks to income reduce the tax rate in addition to reducing the tax base. Finally, the higher effective marginal rates implied by phase-outs stabilize by absorbing more of any change in incomes. Higher income taxes provide more economic stability, so it is no surprise that the introduction of a phase-out, sometimes called a “stealth tax,”¹¹⁹ makes an economy more stable in the presence of shocks.

The ambiguous stabilization effects of a tax expenditure program with phase-outs can be illustrated via the earned income tax credit (EITC). Over the last twenty years, negative income taxes, such as the EITC,¹²⁰ have become an important income supplementation program. Negative income taxes encourage employment by increasing the marginal return from an hour of work for sufficiently low-income individuals. Instead of taking away benefits or subtracting taxes after an hour of work, the negative income tax amplifies the gain from work by providing a government subsidy for work.

Without a phase-out, the EITC destabilizes the economy relative to almost any alternative program.¹²¹ Suppose that there is a shock to investment that leads to some unemployment. The EITC multiplies this shock. Unemployed workers who formerly received the EITC not only lose their jobs but also pay more in net taxes as they lose the benefits of the EITC credit. A negative

117. See *Historical EITC Parameters*, *supra* note 116; see also I.R.C. § 32.

118. See Galle & Klick, *supra* note 47, at 212-13.

119. See Andrew D. Schwartz, *Stealth Tax: What You Can Do*, BOS. GLOBE (Jan. 11, 2007), <http://www.boston.com/business/taxes/mspca07/stealthtax> (describing the phase-out as a stealth tax).

120. The Earned Income Tax Credit is not a pure negative income tax. It is phased out above certain levels of income and provides a constant subsidy for other levels of income. See I.R.C. § 32(a)(2), (b) (2006).

121. The government could fund negative income taxes by imposing a large lump sum tax on all individuals and then providing a credit for dollars earned. Thus, a negative income tax is theoretically possible for an entire economy. In reality, most negative income taxes are phased out. The impact of such a phase-out will be examined in *infra* Part V.

income tax implies that taxes are higher when employment and wages are lower.

The introduction of the EITC in combination with a phase-out to the economy therefore has two conflicting effects on stabilization. The phase-out portion of the expenditure stabilizes.¹²² The credit itself, however, operates to destabilize the economy. The net stabilization effect of the introduction of an expenditure linked with a phase-out, when compared to no expenditure but higher government spending, is therefore ambiguous.

The net stabilization effect depends upon the nature of the distribution of shocks to income across the income distribution. Consider the following example involving the earned income tax credit. Suppose that a negative shock to the economy is felt entirely through a decrease in income for those earning \$30,000 or more. That is, the negative shock lowers the income of those making more than \$30,000 but does not affect the income or employment status of those earning less than \$30,000. In this case, the tax expenditure with phase-out acts as a stabilizer relative to fixed government spending. All those earning less than \$30,000 experience no change in earned income tax credits as a result of the shock. Those earning more than \$30,000, however, receive higher earned income tax credits. These individuals have lost income, and therefore, less of their earned income tax credit is phased out. In addition, some individuals who previously did not qualify for the EITC now do qualify. For all of these individuals earning more than \$30,000, net taxes go down when incomes go down, providing a stabilization effect compared with income insensitive government spending.

Now suppose that a negative shock to the economy causes unemployment for those earning less than \$15,000 but does not affect the earnings of anyone with income above \$15,000. In this case, the EITC destabilizes. Anyone earning less than \$15,000 now pays higher net taxes (they receive a smaller EITC or no EITC). Anyone earning more than \$15,000 is unaffected by the negative shock. In total, the government collects more in net taxes when the economy experiences a negative shock, making the EITC a destabilizer.

The EITC is also a destabilizer if there are significant job *losses* in the under-\$40,000 income category. As just discussed, if earned incomes shrink from \$30,000 to \$25,000, then EITC payments go up, making the phase-out stabilization effect outweigh the tax expenditure destabilizing effect. If earned incomes go from \$30,000 to zero, however, then EITC payments go down as incomes go down. This means that the EITC acts as a net destabilizer.

If the true economic response to shocks resembles the job loss scenarios more than the lower income scenarios, then tax expenditures combined with phase-outs such as the EITC or Section 68 are more likely to be destabilizing.

122. The phase-out stabilization effect is the effect emphasized by Batchelder, Goldberg, and Orszag, who argue that a refundable earned income tax credit functions as a stabilizer, overlooking the destabilizing aspects of tax expenditures. See Batchelder et al., *supra* note 66, at 61-65.

There is some evidence that the “job loss” scenarios are the more accurate representation. As DeLong notes, “when the business cycle turns downward, the jobs that disappear are disproportionately low-wage jobs held by the less skilled.”¹²³ Thus, it is likely that the destabilizing effects of expenditures outweigh the stabilizing effects of the Section 68 phase-out, and it is possible that the destabilizing effect of EITC payments outweighs the stabilizing effect of its phase-out. (The EITC is more difficult to measure because some job losses may be replaced with lower income jobs, leading to income shrinkage.)

The discussion above compared the stabilization properties of phased-out tax expenditures against income-blind government spending. This may not be the appropriate comparison, however. Instead, tax expenditures could be replaced with government programs that are themselves phased out. In this case, the tax expenditure program is unequivocally destabilizing relative to the government spending program. Compare, for example, a welfare program with the EITC program. The welfare program was not received by everyone. Instead, only individuals with extremely low incomes qualified. Any decrease in income raised the amount of government spending on welfare, stabilizing the economy. By contrast, the effects of a decrease in income on EITC spending depend upon the composition of the decreases in income. The EITC may stabilize, or it may destabilize. In total, the welfare program offers superior stabilization properties.

2. The Standard Deduction as an Automatic Stabilizer

The U.S. income tax system maintains a “standard deduction.” The standard deduction is “a dollar amount that reduces the amount of income on which you are taxed. . . . [Taxpayers] cannot take the standard deduction if [they claim] itemize[d] deductions.”¹²⁴ To illustrate, if a taxpayer has \$5000 in itemized deductions and the standard deduction is \$7000, then the taxpayer will subtract the \$7000 standard deduction—and not the \$5000 in itemized deductions—from her Adjusted Gross Income in order to calculate her taxable income.

Because the standard deduction replaces itemized deductions for many taxpayers, it reduces the destabilizing effects of itemized deductions discussed above. Suppose that a taxpayer’s deductions fluctuate with the business cycle. In good times, a taxpayer gives more to charity, pays higher state and local taxes, and pays more mortgage interest. The previous sections of this Part noted that the government subsidies for these activities were destabilizing, with subsidies increasing in booms and decreasing in recessions. Under these

123. J. Bradford DeLong, *It Doesn't Work*, 12 CRITICAL REV. 59 (1998) (reviewing RICHARD K. VEDDER & LOWELL E. GALLAWAY, *OUT OF WORK: UNEMPLOYMENT AND GOVERNMENT IN TWENTIETH-CENTURY AMERICA* (updated ed. 1997)).

124. See Topic 551—Standard Deduction, IRS, <http://www.irs.gov/taxtopics/tc551.html> (last updated Mar. 15, 2011).

conditions, the standard deduction functions as a stabilizer. An economy with an income tax code that includes a standard deduction is more stable in the face of economic fluctuations than an otherwise identical economy without a standard deduction.

First consider a taxpayer whose itemized deductions never exceed the standard deduction. For this taxpayer, the destabilizing impact of most tax expenditures is neutralized by the standard deduction. For example, suppose that a taxpayer's itemized deductions are \$3000 in a recession and \$6000 in a boom, while the standard deduction is \$7000. In this case, the taxpayer pays the same amount of taxes in recessions and booms, taking the standard deduction in both cases. Even though the taxpayer gives more charity and pays more state income taxes in good times than bad, she does not receive a higher deduction for charitable contributions in good times because the standard deduction is the same in both years. Rather, her tax burden is the same. The standard deduction therefore negates the destabilizing effect of itemized tax deductions that go up in boom years and go down in busts for taxpayers who are always subject to the standard deduction.

Now consider a taxpayer who has itemized deductions of \$6000 in recessions and \$10,000 in economic booms. The standard deduction is \$7000. This taxpayer uses the standard deduction in recessions and takes itemized deductions in boom times. In these circumstances, itemized deductions are destabilizing—the taxpayer gets a greater government subsidy for charitable expenditures and state income taxes in a boom year than in a recession. The standard deduction, however, reduces the gap between the size of the government subsidy in booms and in busts. Absent the standard deduction, the government subsidy for itemized expenditures would be 40% lower in recessions in boom years than in busts (because \$6000 in itemized expenditures is 40% less than \$10,000). The standard deduction, by contrast, means that the effective subsidy is only reduced by 30% in the recession (the standard deduction of \$7000 is 30% less than the itemized deductions of \$10,000 that benefit from tax in booms). In total, the standard deduction mitigates but does not eliminate the destabilizing impacts of tax expenditures for taxpayers whose itemized deductions exceed the standard deduction in boom years but fall short of the standard deduction in recessions.

The standard deduction may also have a destabilizing “price effect” for expenditures that can be moved from year to year, changing behavior in a way that destabilizes the economy. Suppose a taxpayer can shift charitable giving from recessions to boom years and vice versa and that the standard deduction applies to the taxpayer in recessions but not in booms. In these circumstances, the taxpayer will move charitable contributions into boom years. Because of the standard deduction, the taxpayer enjoys no government subsidy for charitable giving in recessions, but does benefit from the subsidy associated with itemizing when a charitable donation is given in a boom. A dollar of charity

costs the taxpayer a dollar in after tax income in recessions but only seventy-five cents (assuming a marginal income tax rate of 25%) in booms.

If charitable organizations use most of the donations they receive in the year that they receive them (rather than saving them), then this price effect of the standard deduction destabilizes. The amount of charitable giving will be more sensitive to the business cycle than it would be if the standard deduction did not exist. This destabilizes the economy directly and makes implied government spending through the tax expenditure more destabilizing as well.

In total, the macroeconomic effects of the standard deduction depend on the sensitivity of individual behavior to these price effects. If individuals do not respond to the change in the effective price of charity or other itemized expenditures, then the standard deduction will be stabilizing because it limits the procyclical fluctuation of implied government spending through tax expenditures for itemized deductions. If, however, the price effect embodied in the standard deduction has large effect on behavior and makes spending on itemized deductions more sensitive to the business cycle than would otherwise be the case, then the standard deduction may be destabilizing.

D. Operating-Loss Offsets from a Keynesian Macroeconomic Perspective

This Part has focused on tax expenditures, and with good reason. The approximately \$1 trillion in expenditures have important,¹²⁵ and previously overlooked, destabilizing effects on the economy.¹²⁶ But tax expenditures are not the only feature of the Tax Code that makes the Code more stabilizing or destabilizing than an ideal Haig-Simons accretion tax would be.¹²⁷ Limitations on the tax benefits of business losses constitute an important macroeconomic destabilizing force from a Keynesian perspective.¹²⁸

Business profits and losses are extremely sensitive to the state of the business cycle.¹²⁹ Profits are the residual money that remains after all contractually-fixed claims are paid. Thus, a small change in the business

125. See Gadi Dechter, *Budget Bullets: Tax Expenditures*, CTR. FOR AM. PROGRESS (June 8, 2011), <http://www.americanprogress.org/issues/2011/06/budgetbullets060811.html> (describing the impacts of an estimated \$1 trillion in tax expenditures).

126. See *supra* Parts V.A-V.C.

127. The Haig-Simons concept of accretion defines taxable income as “the algebraic sum of (1) the market value of rights exercised in consumption and (2) the change in value of the store of property rights between the beginning and end of the period.” HENRY C. SIMONS, *PERSONAL INCOME TAXATION: THE DEFINITION OF INCOME AS A PROBLEM OF FISCAL POLICY* 50 (1938). The federal income tax calculation of taxable income often deviates from the Haig-Simons definition. See GRAETZ & SCHENCK, *supra* note 8, at 96-97.

128. Strnad, *supra* note 47, at 185-86 (discussing offset limitations on capital losses, but not limitations on operating losses).

129. Victor Zarnowitz, *Recent Work on Business Cycles in Historical Perspective: A Review of Theories and Evidence*, 23 J. ECON. LIT. 523, 527 (1985) (“Business profits show very high conformity and much greater amplitude of cyclical movements than wages and salaries, dividends, net interest and rental income.”).

climate can have a large effect on the residual. From a Keynesian perspective, accretion income taxes on business profits and losses are therefore quite stabilizing. In boom years, businesses will turn high profits and the government will collect significant income tax revenue, dampening the boom. In bad years, businesses experience losses. In an accretion tax, the government writes “negative” income tax checks, providing business with a tax refund that partially offsets their losses and dampening the impacts of the recession.

The Tax Code, however, does not feature tax payments that are directly proportional to operating losses. Instead, there are restrictions on the tax benefits associated with net operating losses (NOLs).¹³⁰ When a business turns an operating profit for the year, the income tax (unsurprisingly) provides that the business owes income taxes. When a business loses money over a taxable year, the business does not pay negative income taxes (receive a tax refund). Rather, the business must “carry” the NOL forward or backward.¹³¹ If the business owed positive income taxes on profits in either of the previous two years, then it can receive a refund of some of the taxes paid in those years by “carrying back” the current year’s NOL against the previous year’s taxable income.¹³² If the business can carry back the entire value of the current year’s NOL, then the restrictions on the tax benefits of current year NOLs are irrelevant from a macroeconomic perspective. The refund of past years’ income tax payments makes the taxpayer as well off as the taxpayer would be with a purely symmetrical income tax that gives refund for losses at the same rate. The sensitivity of total income tax revenues to the business cycle is the same as it would be if NOLs were fully refundable.

If the taxpayer cannot carry back the current year’s NOLs, then the losses can be carried forward for up to twenty years.¹³³ If the business makes a net operating profit in one of the next twenty years, the NOLs of the current year can be used to reduce the tax liability owed on that future year’s profits. If the business does not make a profit over the next twenty years, the NOLs expire without producing any tax benefit.

When the Tax Code requires NOLs to be carried forward rather than produce an immediate tax benefit, the income tax becomes less of a macroeconomic stabilizer than it would be if income taxes were a constant function of profits or losses. When a firm goes from \$3 in profit to \$1 in profit, its tax burden falls by the \$2 reduction in profit multiplied by the marginal income tax rate. When the same firm goes from \$1 in profit to a loss of \$1, the

130. For discussions, see, for example, Joseph Bankman & Thomas Griffith, *Is the Debate Between an Income Tax and a Consumption Tax a Debate About Risk? Does it Matter?*, 47 TAX L. REV. 377, 401-02 (1992); Mark Campisano & Roberta Romano, *Recouping Losses: The Case for Full Loss Offsets*, 76 NW. U. L. REV. 709 (1981); and Robert H. Scarborough, *Risk, Diversification, and the Design of Loss Limitations Under a Realization-Based Income Tax*, 48 TAX L. REV. 677 (1993).

131. I.R.C. § 172 (2006).

132. *Id.* § 172(b)(1)(A)(i).

133. *Id.* § 172(b)(1)(A)(ii).

reduction in tax burden is only \$1 multiplied by the marginal tax rate. The requirement that NOLs are carried forward rather than taken immediately means that income taxes paid cannot go below zero. If there are no “carry backs,” the current year’s income tax liability is the same if losses are zero, \$1, or \$1 million. Once a firm enters the net operating loss category—and there are many firms in this category in recession—the Tax Code no longer functions as an automatic stabilizer. Firms truly have a dollar less to spend for each additional dollar in losses, rather than having the reduction in current year expenditure buffered by the U.S. Treasury.

The ability to carry forward the loss means that NOLs are not gone forever. The carry-forward, however, tends to move the tax benefits of NOLs from recessions to later periods of profit where the economy is no longer in recession. The requirement that NOLs be carried forward rather than produce tax benefits immediately means that income tax revenues are higher in recessions and lower in periods of widespread profit than they would be under a pure business income tax. The NOL carry-forward provisions therefore have a destabilizing impact on the economy from a Keynesian macroeconomic perspective. Moreover, the next section demonstrates that the operating loss tax benefit restrictions are also destabilizing from a non-Keynesian macroeconomic perspective.

E. Operating-Loss Restrictions from Non-Keynesian Macroeconomic Perspective

To this point, I have canvassed many features of the Tax Code from a Keynesian macroeconomic perspective. From a Keynesian lens, numerous important elements of our Tax Code, such as restrictions on the tax benefits of operating losses, have an important destabilizing effect on our economy. But a revival of a macroeconomic view of the Tax Code should not have an exclusively Keynesian perspective. Elements of the Code can be stabilizing or destabilizing from other perspectives as well. This section illustrates the non-Keynesian approach by examining the Tax Code’s limitations on loss offsets from an investment uncertainty perspective. My intent here is to provide an illustration of what can be gained by viewing the Tax Code through a non-Keynesian macroeconomic lens, and not to make any claim that this particular perspective should hold a privileged place in macroeconomic discourse on the impact of the Tax Code.

1. The Real Options Theory of Recessions

The classical economic model of investment is simple. Invest if the future cash flows from an investment exceed the costs of the investment. Don’t invest otherwise. Macroeconomic scholarship over the last thirty years has complicated this simple model. An investment opportunity is not a one period

decision that must be made or foregone forever. Instead, investment is characterized by an asymmetry. Once an investment is made, it cannot be undone without considerable expense. A decision not to invest, by contrast, can be reversed in a subsequent period, after some uncertainty has resolved. The benefit of this additional information implies that there is a “real option” value to delaying investment. Thus, an investor may forego investing in a positive expected value project in the current period if the gain from waiting and getting more information—retaining the option to invest—is greater than the current value of exercising the option to invest in the positive expected value project.¹³⁴

The value of this “real option” to invest is increasing in the uncertainty associated with the investment. If conditions are extremely unstable, then a delay in a positive expected value investment may avoid a sunk cost investment that proves to have very little value. If little is likely to change between today and tomorrow, then little is gained by delaying investment on a project with positive expected value. Using this insight, a number of macroeconomists have suggested that recessions are periods with abnormally high uncertainty that raises the real option value of delaying investment.¹³⁵ This leads to a decrease in investment and a concomitant recession. (Changes in investment are notoriously volatile and are often important components of recessions.)

2. Uncertainty, Limited Loss Offsets, and the Tax Incentive To Delay Investment

Restrictions on loss offsets cause greater decreases in investment as uncertainty rises under these macroeconomic theories. The restrictions on loss offsets makes investors abhor variance even more than they would if there were no such restrictions. With loss offsets limitations, the downside of an investment is greater than it would be without the limitation. The loss limitation limits the tax benefit that would otherwise be associated with losing investment. If there are no profits against which the losses can be carried forward or carried back, a losing investment has no tax benefit. As a result, businesses will do more to avoid the downside risk of investing. One way of reducing this downside risk is by delaying investment until there is less uncertainty.

In total, periods of high uncertainty will see investment decline because investors want to make certain the investment is profitable (as emphasized by the real options scholars) and because investors want to reduce the total tax

134. See, e.g., AVINASH DIXIT & ROBERT PINDYCK, *INVESTMENT UNDER UNCERTAINTY* (1994).

135. See, e.g., Ben Bernanke, *Irreversibility, Uncertainty, and Cyclical Investment*, 98 Q.J. ECON. 85 (1983); Nicholas Bloom, *The Impact of Uncertainty Shocks*, 77 ECONOMETRICA 623 (2009); Nicholas Bloom, Stephen Bond & John Van Reenen, *Uncertainty and Investment Dynamics*, 74 REV. ECON. STUD. 391 (2007); John A.A. Hassler, *Variations in Risk and Fluctuations in Demand: A Theoretical Model*, 20 J. ECON. DYNAMICS & CONTROL 1115 (1996).

obligation associated with the investment. Without a restriction on loss offsets, the second reason for delay would not exist. The expected tax obligation of an investment would not be a function of uncertainty. With loss offsets, however, the tax obligation is increasing in uncertainty. Higher profits beget higher taxes, while greater losses do not reduce tax obligations to the same degree. As a result, investors have a tax-motivated reason to adopt a wait and see approach to investment during periods of high uncertainty. This exacerbates the decrease in investment caused by increases in risk, thus aggravating the recessionary effect of an increase in risk on the economy.

Limitations on loss offsets are destabilizing from both Keynesian and non-Keynesian macroeconomic perspectives.

F. Empirical Relevance

The previous sections examined the theoretical stabilization properties of tax expenditures and found that they are generally destabilizing. This section reports some suggestive empirical evidence about whether these destabilizing properties are empirically important.

Aggregate data on Tax Code revenues over the business cycle present a flawed measure of the stabilizing impact of the Code for a number of reasons. First, income tax data ignore spending. Tax expenditures may substitute for spending programs. As a result, the aggregate income tax data may understate the destabilizing force of tax expenditures because the data does not account for the substitution of potentially stabilizing government spending programs. Second, aggregate data may mask offsetting stabilizing and destabilizing forces within the income tax. For example, a crackdown on tax shelters may cause the average income tax rate to rise. This will make the tax a better stabilizer, but it tells us nothing about the role of various tax expenditures in amplifying or dampening recessions. Third, aggregate data on income tax revenues do not account for the business cycle-sensitive incentive effects caused by the Tax Code. For example, the reduction in investment caused by a restriction on loss limitations may not decrease tax revenues in the year of a recession. Instead, the effects of the tax provision will be felt directly in investment spending over the business cycle.

In spite of these caveats, there are several reasons to suspect that the destabilizing impacts of the Tax Code provisions examined here are quantitatively significant. Tax expenditures account for approximately 7% of GDP.¹³⁶ This figure is of comparable magnitude to the individual income tax,

136. See BENJAMIN H. HARRIS, KATHERINE LIM & ERIC TODER, TAX POLICY CTR., DISTRIBUTIONAL EFFECTS OF TAX EXPENDITURES 1 (2009), available at http://www.taxpolicycenter.org/UploadedPDF/411922_expenditures.pdf (projecting that federal tax expenditures will equal 6.7% of GDP in fiscal year 2012).

which collects approximately 8% of GDP,¹³⁷ or to discretionary government spending (including defense), which also equals approximately 8% of GDP.¹³⁸ If the automatic stabilization properties of discretionary spending and income taxes are worth emphasizing in introductory economics textbooks, then surely the stabilization properties of tax expenditures are worth careful analysis.

Moreover, a recent paper by Auerbach found that the income tax's automatic stabilization properties are at a forty-year low.¹³⁹ Much of the decrease can be explained by decreases in marginal tax rates.¹⁴⁰ Increasing tax expenditures may also explain part of the decrease. As increasing portions of income become excluded from taxation, the automatic stabilization provided by income taxes inevitably decreases for any given marginal tax rate.

The empirical data on tax expenditures reported earlier in this section further suggest that the value of the prominent deductions and exclusions detailed has an important destabilizing effect. For example, the inflation adjusted value of the procyclical tax expenditures discussed above decreased by more than \$100 billion at the start of the Great Recession between 2007 and 2009.¹⁴¹ This is a quantitatively important destabilizer—four times the size of the \$26 billion stimulus package, passed with much fanfare in August 2010, that was intended to save more than 150,000 jobs.¹⁴² If tax expenditures are replacing government spending that itself acts as an automatic stabilizer—as is likely—then this destabilizing force likely understates the total reduction in stabilization provided by reliance on income tax expenditures rather than government spending.

V. Policy Implications and Conclusion

Our whirlwind tour of the macroeconomic effects of various Tax Code provisions suggests a number of policy recommendations. The intensity with which these recommendations should be followed depends upon the role macroeconomic factors play in determining policy more generally. In the current age of macroeconomic instability, these factors loom large.

137. See KIM RUEBEN & CAROL ROSENBERG, *THE TAX POLICY BRIEFING BOOK: A CITIZEN'S GUIDE FOR THE 2008 ELECTION AND BEYOND* I-1-1 (2008), available at http://www.taxpolicycenter.org/briefing-book/TPC_briefingbook_full.pdf (noting that since 1950, the individual income tax has collected "just over 8 percent of GDP").

138. See OFFICE OF MGMT. & BUDGET, *HISTORICAL TABLES: BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 2009*, at 8 (2008), available at <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2009/pdf/hist.pdf>.

139. Alan J. Auerbach, *Implementing the New Fiscal Policy Activism* (Nat'l Bureau of Econ. Research, Working Paper 14,725, Feb. 2009), available at <http://www.nber.org/papers/w14725>.

140. As demonstrated in *supra* Part II, lower income tax rates imply a lower degree of automatic stabilization.

141. See Tax Expenditure Data, *supra* note 11.

142. See Brian Faler, *Obama Signs \$26 Billion State Aid Plan After U.S. House Passage*, BLOOMBERG (Aug. 11, 2010), <http://www.bloomberg.com/news/2010-08-10/u-s-house-approves-26-billion-in-aid-for-states-sends-measure-to-obama.html>.

A. Reduced Reliance on Business Cycle-Sensitive Tax Expenditures

Tax incentives for expenditures that are very sensitive to the business cycle destabilize the economy. They imply higher government spending in good times and lower spending in booms—the antithesis of standard Keynesian policy prescriptions. In the current period of economic instability, we should curtail our reliance on these expenditures. We should replace them, wherever possible, with direct government spending programs that target the same types of expenditure. If replacement is not feasible, we should reform the tax expenditure so that it targets spending that is less sensitive to the business cycle.

There are many possible reforms to tax expenditure programs that would reduce their destabilizing effects. Take the exclusion for employer-provided healthcare. As noted above, employment, and therefore employer-provided healthcare, is sensitive to the business cycle. This makes the exclusion a hidden macroeconomic destabilizer. To reduce the exclusion's destabilizing effect, we should consider several reforms to the tax expenditure.

1. Elimination of Procyclical Tax Expenditures

Most obviously, we could eliminate the income tax exclusion for employer-provided healthcare. With elimination of the exclusion, employer-provided healthcare would continue to vary with the business cycle, but the implicit government subsidy for the healthcare would be scratched. Implicit government spending through the tax expenditure no longer would vary positively with the business cycle, improving the Tax Code as a Keynesian macroeconomic stabilizer.

Elimination of the exclusion could be paired with increased direct government provision of healthcare. Government provided healthcare would likely be business cycle neutral, or might even be stabilizing, as with the Medicaid program, which costs more in recessions as more individuals meet the program qualification criteria. In this way, the Tax Code would become more of a macroeconomic stabilizer without dramatically reducing government support for healthcare.

The 2009-2010 healthcare debate included several reform proposals for the exclusion of employer-provided healthcare.¹⁴³ Most of these proposals stressed the inefficiency of the exclusion, suggesting that it led to inefficiently lavish healthcare plans. The macroeconomic properties of the exclusion received no attention. The healthcare reform act ultimately included a reform of

143. See, e.g., Healthy Americans Act, S. 391, 111th Cong. (2009); Michael F. Cannon, *The Tax Treatment of Health Care*, in CATO HANDBOOK FOR POLICY MAKERS 141-49 (7th ed. 2009); Jonathan Cohn, *Tax My Health Benefits. Please.*, NEW REPUBLIC, Mar. 17, 2009, <http://www.tnr.com/article/politics/tax-my-health-benefits-please>.

the exclusion, instituting a tax on employer “Cadillac” health plans once the value of the plans exceeds a certain threshold. While this reform will likely reduce inefficient healthcare spending, it does little to improve the destabilizing properties of the exclusion. The tax on Cadillac plans only begins at a high threshold. When an employee takes a job with a Cadillac health plan, she enjoys the benefits of exclusion up to the point of the Cadillac tax introduction threshold. When an employee loses a job with a Cadillac plan, she loses the benefit of the tax expenditure all the way up to the threshold. The modified exclusion for employer-provided healthcare remains destabilizing. The Cadillac plan tax therefore improves incentives of the margin for employee provided healthcare but does not dramatically alter the macroeconomic effects of the exclusion for employee provided healthcare.

2. Make Tax Expenditures Less Business Cycle Sensitive

The health insurance mandate provision of the healthcare reform, by contrast, improves the macroeconomic properties of the exclusion for employer-provided healthcare. Before the healthcare reform, an employee that lost her employer-provided healthcare may have chosen to forego health insurance and spend money on nondeductible expenses. With the mandate, however, the employee will be required to expend a considerable amount of money on health insurance. Through the use of health savings accounts (HSAs), much of the money spent on healthcare will benefit from a tax deduction.¹⁴⁴ Health insurance spending with a mandate is less sensitive to the business cycle than health insurance spending without a mandate. The implicit government subsidy for healthcare spending therefore becomes less procyclical as well.

The health insurance mandate demonstrates that we do not need to repeal a tax expenditure in order to make it less destabilizing. Instead, we can reform the tax expenditure so that it targets spending that is less sensitive to the business cycle.

3. Increased Use of Phase-Outs or Caps on Tax Expenditure Programs

Phase-outs mitigate the destabilizing properties of tax expenditures. An income-based phase-out of an expenditure program means that, in boom times (as income grows), more individuals become ineligible for a tax benefit and tax

144. Health Savings Accounts were created by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, Pub. L. No. 108-173, 117 Stat. 2066, 2469 (codified at I.R.C. § 223 (2006)). They allow individuals who are enrolled in high-deductible health insurance plans to save for catastrophic medical expenses on a tax-free basis. The 2010 healthcare reform legislation keeps HSAs in place. See Ron Lieber, *Hefty Tax Break Spared in Health Care Bill*, N.Y. TIMES, Mar. 26, 2010, <http://www.nytimes.com/2010/03/27/your-money/health-insurance/27money.html> (“[T]he legislation makes it likely that many more people will take advantage of the accounts by the middle of the decade . . .”).

revenues rise. The opposite occurs in recessions, mitigating the destabilizing effects of the tax expenditure. Indeed, a phase-out effectively makes the Tax Code more progressive and therefore more stabilizing. If we introduce phase-outs to tax expenditure programs that are presently without them, we make the Tax Code more stabilizing, while also raising revenue. On the downside, phase-outs introduce yet more complexity to an already bewildering Tax Code.

Alternatively, we can cap the cost of tax expenditures. For example, we can say that we will forego \$40 billion in revenue through tax breaks for charitable deductions. If the implied value of tax expenditures is greater than \$40 billion, then the tax favorability of the deduction will be reduced pro rata for all those benefiting from the deduction. A cap reduces the “upside sensitivity” of tax expenditures to the business cycle. If a boom leads to a massive increase in charitable giving, the cap means that implied government spending on charitable giving can never exceed \$40 billion. If the tax subsidy for charitable giving always exceeds \$40 billion in booms and busts, then the introduction of a cap of \$40 billion means that our subsidy for charitable giving is constant across the business cycle.

A cap-and-floor system for tax expenditures would make the expenditure affirmatively stabilizing. For example, suppose that Congress provides \$40 billion to subsidize charitable giving in all years. If the value of the tax deduction at current marginal rates falls short of \$40 billion in any given year, then the tax deduction can be raised in proportion to the \$40 billion floor. Suppose that the annual value of deductions in a given year at marginal rates was \$30 billion and that I gave \$10,000 in charity and my marginal income tax rate is 30%. I should get an income tax deduction worth \$3000. But because only \$30 billion of the \$40 billion floor would be used, the value of my tax deduction gets increased by 33%. My \$10,000 deduction now reduces my tax obligation by \$4000 rather than by \$3000. The same thing happens to the value of everyone’s deduction, so that the total subsidy for charitable giving reaches the \$40 billion floor.

With the floor, the amount Congress spends on subsidizing charitable giving remains constant at \$40 billion. The system stabilizes because of a price effect. With the cap and floor on subsidies, the size of the subsidy is higher in years when people would give less and lower in years when people give more. In response, people would reallocate charitable giving to recession years, when the subsidy is higher. If the charities spend the additional revenue, then the cap-and-floor system moves economic activity toward recessionary years in a stabilizing fashion.

B. Greater Attention to Macroeconomics in Forming Income Tax Policy

The above policy recommendations suggest a more general point. We are missing fundamental macroeconomic implications of our income tax policy. As we debate whether or not \$800 billion in stimulus is adequate, we ignore how

our basic income tax policy stabilizes or destabilizes the economy. Tax expenditures are a prominent example (costing approximately \$1 trillion per year) of the consequences of our macroeconomic blinders, but there may be many others.

This needs to change. Income tax reforms should no longer go forward without at least some consideration of their macroeconomic consequences. Just as income tax policies are evaluated on efficiency and equity grounds, they should be judged by their impact on the business cycle. An income tax reform that is slightly favorable from efficiency and equity perspectives that is markedly procyclical should not be passed at the same time that we are devoting efforts to stimulate our moribund economy.

The change begins on the academic front. Policymakers evaluate policies using criteria they learned in school. Our income tax casebooks should present the macroeconomic perspective to their students so that the students are ready to apply the perspective in practice. In addition, tax academics should devote more of their energy to finding other hidden destabilizers buried in our Tax Code. The destabilizing features of tax expenditures may be only one example of a baleful destabilizing pattern. In this era of instability, we must return macroeconomics to the core of income tax policy.

